Health Care Financing

Status Report

Research and Demonstrations in Health Care Financing
Fiscal Year 1988 Edition

Health Care Financing Administration

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Status Report

The Office of Research and Demonstrations (ORD), Health Care Financing Administration (HCFA), directs nearly 300 research, evaluation, and demonstration projects. A central focus is on program expenditures as they relate to reimbursement, coverage, eligibility, and management alternatives under Medicare and Medicaid. Study activity also examines program impact on benenficiary health status, access to services, utilization, and out-of-pocket expenditures. The behavior and economics of health care providers and the overall health care industry are also topics of investigation.

These activities are carried out by three major components—the Office of Research, the Office of Demonstrations and Evaluations, and the Office of Operations Support. The Office of Research conducts and supports data collection efforts and research on health care providers, reimbursement, beneficiary behavior, and health care utilization. The Office of Demonstrations and Evaluations funds, manages, and evaluates pilot programs that test new ways of delivering and financing Medicare and Medicaid services. The Office of Operations Support provides ORD-wide administrative direction for its research, demonstration, and evaluation projects, which includes the budget and accounting operations; grants, cooperative agreements, and contracts-award process; and publications and information resources program.

This report provides basic information on active intramural and extramural projects in a brief format. These projects are used to assess new methods and approaches for providing quality health care while containing costs, and they often provide the basis for making critical policy decisions on health care financing issues.

Projects are arranged according to ORD budget priority areas and subject categories. The synopsis on each project includes the title, project number, project period, name and address of awardee, contractor, or grantee organization, Federal project officer with primary responsibility for the project, a brief description, and the status of the project as of September 30, 1988. When a project involves research and development funds, the total funding amount for the life of the project is included. Remaining extramural projects are being conducted with waivers that permit innovations to financing and delivery of health services under the Medicare and Medicaid programs.

This is the ninth edition of the *Status Report.* Updated editions are produced on an annual basis. The information presented should be of use to policy officials, health planners, and researchers in examining the range of research and demonstration activities that are undertaken by ORD and the implications of results and findings.

Health Care Financing Status Report

Research and Demonstrations
in Health Care Financing

U.S. Department of Health and Human Services
Health Care Financing Administration
Office of Research and Demonstrations
Baltimore, Maryland
March 1989

Requests to be placed on our mailing list to receive notification of future publications as they become available should be sent to: Health Care Financing Administration, Office of Research and Demonstrations, Publications and Information Resources, Room 1-A-9 Oak Meadows Building, 6325 Security Boulevard, Baltimore, Maryland 21207.

Contents

Alternative Payment Systems

Refinements to the Adjusted Average Per Capita Cost

Determination of Health Maintenance Organization Capitation Rates for Medicare Beneficiaries

Project No.: 17-C-98804/9-03
Period: September 1985-August 1989
Funding: $ 1,046,935
Award: Cooperative Agreement
Awardee: Kaiser Foundation Research Institute
3505 Broadway, Suite 1112
Oakland, Calif. 94611
Project Officer: Gerald F. Riley
Division of Beneficiary Studies

Description: The project investigates the issue of biased selection into health maintenance organizations (HMO's) and the problem of developing a risk-adjustment methodology for HMO payments by using both internal Kaiser data and data from the Medicare Statistical System. The investigator's specific aims are as follows:

- To predict health care costs for groups of stayers and switchers the in fee-for-service sector and an HMO (Kaiser), and to estimate the degree of selection bias, if any, among HMO enrollees.
- To simulate Medicare capitation rates for an HMO using alternative risk-adjustment methods and compare them with the current adjusted average per capita cost rate.
- To develop and test a risk-adjustment methodology employing cause-specific mortality and hospital morbidity for predicting aggregate use of medical care services in future years by Medicare beneficiaries enrolled in an HMO.
- To examine the implications of a separate reinsurance program for case-specific expenses above a specified level of alternative risk-adjusted capitation methods.
- To develop a risk-adjustment methodology by using ambulatory morbidity and self-perceived health status for predicting future aggregate use of medical care services by Medicare beneficiaries enrolled in an HMO.

Status: The project has been extended for 1 year through August 1989. Several draft papers have been prepared and are being submitted for publication. Additional analysis and report writing will continue in the last project year.

An Analysis of Long-Run Ratesetting Strategies for Risk-Based Contracting Under Medicare

Project No.: 18-C-98737/3-01
Period: September 1985-November 1987
Funding: $ 360,081
Award: Cooperative Agreement
Awardee: Virginia Commonwealth University
1012 East Marshall Street
Richmond, Va. 23298-0001
Project Officer: James C. Beebe
Division of Beneficiary Studies

Description: This study will develop a model of the Medicare market as a submarket interacting with the entire market for health services. The model will be used to study geographic variation in the adjusted average per capita cost. Four different payment strategies for capitation will be analyzed:

- Competitive bidding. The study will look at the feasibility of conducting competitive bidding in different geographic areas.
- Vouchers. What are the cost implications of different voucher schemes?
- Blended sector rates. How can health maintenance organization (HMO) payment rates be set in areas of high HMO penetration?
- Rates tied to non-Medicare prices.

An analysis will be conducted to determine if Medicare payment rates can be related to the health market as a whole.

Status: The following reports are available from this study:

- "Reconfiguration of the Geographic Adjustment Factor in the AAPCC Formula: Implications for a Medicare Voucher."
- "The Determinants of Geographic Variation in Medicare Costs: Market Forces in a Broader Context."

Adjusted Payment Rates in Capitated Systems

Project No.: 17-C-98990/3-01
Period: June 1987-June 1989
Funding: $ 374,735
Award: Cooperative Agreement
Awardee: The Johns Hopkins University Center for Hospital Finance and Management
624 North Broadway
Baltimore, Md. 21205
Project Officer: James C. Beebe
Division of Beneficiary Studies

Description: This research has three primary objectives:

- It will investigate whether the adjusted average per capita cost (AAPCC) can be modified to include health status based on prior utilization.
- It will examine whether individuals with specific conditions will continue to require services for many years or whether there is regression toward the mean.
- It will examine whether continuous adjustments can be made to the AAPCC instead of classifying beneficiaries into discrete categories.

Status: A survey of about 50 physicians was conducted as part of an effort to classify hospital diagnoses and procedures according to their degree of discretion and

likely future medical expense implications. Results will be used in a model to predict expenses.

A Selectivity Bias Correction for the Medicare Adjusted Average Per Capita Cost

Project No.:	17-C-99040/5-02
Period:	June 1987-September 1990
Funding:	$ 499,601
Award:	Cooperative Agreement
Awardee:	University of Minnesota School of Public Health 420 Delaware Street, SW., Box 729 Minneapolis, Minn. 55455
Project Officer:	Gerald F. Riley Division of Beneficiary Studies

Description: The project's primary objective is to develop a methodology for producing unbiased estimates of the degree of biased selection present among health maintenance organization (HMO) enrollees. The method corrects for unobserved as well as observed characteristics of beneficiaries that influence both the beneficiaries' choice of health plan (i.e., HMO or fee-for-service) and the subsequent amount of resources consumed. The model will also produce an unbiased estimate of what a group of HMO enrollees would have cost if they had remained in fee-for-service (this is how the adjusted average per capita cost (AAPCC) is defined). The project will go beyond current studies of biased selection by controlling for unobserved as well as observed characteristics that influence beneficiary choice of health plan and future use of services. The project will also develop a method for producing an unbiased AAPCC (i.e., an unbiased estimate of what a group of HMO enrollees would have cost under fee-for-service).

Status: Beneficiary interviews have been completed and claims data for the 12 months following the beneficiary interviews are now being collected. The project has been extended for 15 months to allow time for a full set of claims data to accumulate. The project is scheduled to end in September 1990.

Capitation and Physiologic Measures of Health

Project No.:	99-C-98489/9-05
Period:	May 1986-August 1988
Funding:	$ 109,935
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Marian E. Gornick Division of Beneficiary Studies

Description: This project involves the examination of issues related to capitated financing arrangements under Medicare, particularly those associated with ratesetting methodologies. Researchers from this project will also study the degree to which physiological measures of health status can be helpful in predicting expenditures.

Status: The project is near completion. A report entitled, "Capitation and Medicare" (R-3455-HCFA) was published in October 1986 and can be obtained from the Rand Corporation. This report highlights some of the problems involved in setting capitated rates. Two additional papers are being developed. These papers will discuss the maximum amount of variation in beneficiary health expenditures that a payment formula for health maintenance organizations could explain, and the relative contribution of prior utilization and health status in explaining variations in expenditures. One of the papers will address these questions for non-elderly adults and the other, for children. Both papers are in the review process.

Geographic Variation and Long-Run Capitation Ratesetting for Medicare Expenditures

Project No.:	99-C-98526/1-05
Period:	January 1987-July 1989
Funding:	$95,274
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	James C. Beebe Division of Beneficiary Studies

Description: At present, Medicare capitation payments for health maintenance organization enrollees are set at a level that reflects existing geographic variations in the fee-for-service payment system. An ideal financing system would reflect geographic differences that are attributable to the cost of delivering appropriate health care services while not reflecting differences in styles of practice that are not associated with health outcomes. This research will decompose geographic variation into components attributable to:

- Differences in input prices.
- Differences in the health status of the population.
- Differences in medical practice associated with local supply structures.
- Unspecified factors associated with differences in medical practice patterns.

These components will be incorporated into a model that could serve to modify Medicare capitation rates.

Status: Data tapes have been created and edited. Analysis and model building activities are under way.

Redefine Geographic Areas for Health Maintenance Organization Payments

Project No.:	99-C-98526/1-05
Period:	May 1987-May 1988
Funding:	$ 141,280
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	James C. Beebe Division of Beneficiary Studies

Description: This project examines whether the present county level-based adjusted average per capita cost can

be established on alternative geographic unit(s) that would simplify the payment system and induce providers of service to join the health maintenance organization and competitive medical plan market.

Status: The report on "An Empirical Analysis of Alternative Geographic Configurations for Basing Medicare Payments to Health Maintenance Organizations" was completed in May 1988.

Adjusted Average Per Capita Cost Geographic Reconfiguration

Project No.: 99-C-98526/1-05
Period: May 1988-October 1989
Funding: $ 32,077
Award: Cooperative Agreement
Awardee: Brandeis University Research Center (See page 66)
Task Leader: James C. Beebe
Division of Beneficiary Studies

Description: This project continues the research of examining the alternative geographic configurations to the county for Medicare health maintenance organization payment areas. This research entails analysis of 10 alternative geographic configurations (including the county) using Medicare reimbursement data for seven States.

Status: A condensed version of the report, "An Empirical Analysis of Alternative Geographic Configurations for Basing Medicare Payments to Health Maintenance Organizations" was completed August 1988.

Diagnostic Cost Group Model

Project No.: 99-C-98526/1-05
Period: May 1987-March 1988
Funding: $ 129,533
Award: Cooperative Agreement
Awardee: Brandeis University Research Center (See page 66)
Task Leader: James C. Beebe
Division of Beneficiary Studies

Description: The purpose of this study is to identify the diagnosis or a combination of diagnoses on beneficiaries' admissions under the prospective payment system that tend to be associated with high costs in addition to being nondiscretionary. The ultimate goal of this research is to develop an alternative adjusted average per capita cost that provides for more accurate payments to health maintenance organizations.

Status: The final report was submitted in March 1988.

Continuous Update Diagnostic Cost Group Model

Project No.: 99-C-98526/1-05
Period: May 1988-July 1989
Funding: $ 79,994
Award: Cooperative Agreement
Awardee: Brandeis University Research Center (See page 66)
Task Leader: James C. Beebe
Division of Beneficiary Studies

Description: The purpose of this project is to develop a continuous update diagnostic cost group (DCG) model using monthly cost data. A DCG model is used to determine payments to health maintenance organizations (HMO's) based upon classifying each Medicare beneficiary on the basis of past utilization into one of several payment categories. This model categorizes Medicare beneficiaries with different levels of expected future health care costs. Work on the DCG model includes:

- Developing conceptual and analytical approaches for the project.
- Specifying data file construction tasks and file structure.
- Overseeing data file construction by an outside party.
- Data quality and consistency check.
- Creation of analytical files.
- Estimation of the basic model using the DCG approach.

In addition, the project will include work on two further areas: examining hospitalization patterns of HMO's to better understand the implications of using the DCG model for HMO reimbursement purposes and revalidating the DCG model using 1986 data instead of 1985.

Status: A final report is expected Summer 1989. If, as expected, the continuous update model proves superior to the annual model, it will be phased into the DCG demonstration.

Clinical Refinement of Diagnostic Cost Group Model

Project No.: 99-C-98526/1-05
Period: May 1988-July 1989
Funding: $ 79,994
Award: Cooperative Agreement
Awardee: Brandeis University Research Center (See page 66)
Task Leader: James C. Beebe
Division of Beneficiary Studies

Description: This project is in conjunction with the work presently taking place on a continuous update diagnostic cost group (DCG) model. The objective of this project is to develop conceptual clinical models for identifying patterns of hospitalization data that can be used to categorize individuals whose continuing needs for health care services will result in higher future costs. A new DCG classification system will be produced and payment rates to health maintenance organizations (HMO's) determined. The resultant model will be compared with past models using previously developed measures of statistical performance. This project, along with the continuous updated task, is intended to produce improved formulas for determining payments to HMO's.

Status: A major aspect of this project is the use of SysteMetric's staging classification system to further refine the DCG classification system. SysteMetric has completed the staging classification for data used in building the DCG model. This refinement will be incorporated into the model and a final report is expected by Summer 1989. Consideration will be given to phasing these refinements into the model presently used for the DCG demonstrations.

Evaluation of Diagnostic Cost Group Pilot Demonstration

Project No.:	500-87-0028-10
Period:	September 1988-September 1989
Funding:	$ 118,303
Award:	Technical Support: Evaluation of Demonstrations
	(See page 67)
Contractor:	Mathematica Policy Research, Inc. 600 Maryland Avenue, SW., Suite 550 Washington, D.C. 20024
Project Officer:	Ronald W. Lambert Division of Health Systems and Special Studies

Description: This project consists of two phases. The first phase is the experimental design for the expanded demonstration (a follow-on initiative to the pilot). This will address how the expanded demonstration is to be designed. The second phase will be the pilot evaluation. The purpose of the pilot is to assess the operational issues involved in conducting a demonstration of the diagnostic-cost-group (DCG) payment methodology. The issues to be assessed are:

- Timeliness and quality of data received from health maintenance organizations (HMO's).
- Capability of the Health Care Financing Administration's data processing structure.
- The operational effects of implementing the DCG methodology on HMO's.

Status: The first phase will be completed by early 1989. The second phase will begin when the pilot demonstration begins in early 1989 and will be completed 9 months later.

Medicare Insured Group

Amalgamated Medicare Insured Group

Project No.:	95-C-99171/2-01
Period:	October 1987-December 1989
Funding:	$ 222,992
Award:	Cooperative Agreement
Awardee:	Amalgamated Life Insurance Company 770 Broadway New York, N.Y. 10003
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: The Amalgamated Medicare Insured Group (AMIG) is being developed by the Amalgamated Life Insurance Company, administrators of trust funds for the Amalgamated Clothing and Textile Workers Union (ACTWU). The AMIG project will unify all aspects of program administration, including Medicare Parts A and B and Medicare supplemental benefits, under the auspices of Amalgamated Life. Funding will be provided through a capitated rate paid by the Health Care Financing Administration (95 percent of the adjusted average per capita cost), employer contributions, and enrollee premiums. By using managed health care systems and provider negotiation leverage resulting from a large retiree population, the AMIG is expected to reduce the cost to all payers.

Status: The AMIG project will begin in Philadelphia, where it will offer enrollment to the approximately 8,000 retirees and spouses residing in the area. Amalgamated Life expects to complete development of its health care delivery system by January 1989. The AMIG anticipates enrollment of 1,000 by the first year, eventually reaching 3,500 by the end of the demonstration. If the concept proves successful, Amalgamated Life expects to add other sites to the demonstration by 1990. Possible sites are New York and Baltimore.

Chrysler United Automobile, Aerospace, and Agricultural Implement Workers Medicare Insured Group Research and Demonstration Project

Project No.:	95-C-99331/5-01
Period:	March 1988-February 1989
Funding:	$ 225,835
Award:	Cooperative Agreement
Awardee:	Chrysler Motors Corporation Health Care and Group Insurance 12000 Chrysler Drive Highland Park, Mich. 48288
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: Chrysler Motors Corporation and the International Union, United Automobile, Aerospace and Agricultural Implement Workers (UAW) are developing a Medicare insured group (MIG) to deliver Medicare and supplemental health benefits to Chrysler retirees. The first phase is a feasibility assessment in which Chrysler will analyze historical cost and utilization data on its members to ascertain the potential for cost savings under a MIG. Included will be simulations of managed care techniques expected to be administered under a MIG concept. If Chrysler determines that the MIG concept is economically viable, it will proceed to a second phase (operational protocol development). Under the MIG demonstration, Chrysler will be paid a capitated rate (experience-based payment) by the Health Care Financing Administration and will assume full risk for the full benefit package offered to retirees choosing the MIG option. Benefit options to be offered will

likely consist of preferred provider organizations, health maintenance organizations, and traditional indemnity plans modified through enhanced case management.

Status: The feasibility assessment phase will be complete in early 1989, at which time Chrysler will decide whether to implement a MIG demonstration. A report on the results of the feasibility analyses will then be available. If Chrysler proceeds to implement a MIG demonstration, initial enrollment is expected in 1990.

Medicare Insured Group Ratesetting

Project No.:	99-C-98489/9-05
Period:	May 1987-November 1988
Funding:	$ 108,576
Award:	Cooperative Agreement
	(See page 65)
Awardee:	The Rand Policy Research Center
Task Leader:	Ronald W. Lambert Division of Health Systems and Special Studies

Description: This project involves the development of a ratesetting methodology to be applied to the Medicare insured groups (MIG's). The MIG concept consists of an employer group assuming risk for the benefits of its Medicare beneficiaries. The employer group is to be paid a capitated rate for assuming this risk in the same fashion as health maintenance organizations (HMO's) are paid an adjusted average per capita cost. The purpose of this project is to design an experience-based ratesetting methodology that includes an update procedure for payment rates in successive years.

Status: The ratesetting methodology could be based on the experience of the group under coverage, a larger community, or a blend of the two. To date, research has focused on determining the proper blend between these rates. A draft report was sent to the Health Care Financing Administration in March 1988. The final report should address how experience and community rates can be calculated and how the trade-off between them shifts as the MIG's size increases.

Health Maintenance Organizations and Competitive Medical Plans Evaluation and Monitoring

Medicare Payments to Health Maintenance Organizations: Beyond a Local Fee-For-Service Methodology

Project No.:	17-C-99223/3-01
Period:	June 1988-June 1990
Funding:	$ 50,000
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	James C. Beebe Division of Beneficiary Studies

Description: This project will investigate whether favorable selection by health maintenance organizations (HMO's) in areas of high HMO penetration affects the health status and cost of those Medicare beneficiaries remaining in the fee-for-service sector. If it does, capitation rates set for HMO enrollees may be too high. If such an effect is found, alternatives to current methods for setting capitation rates in high-penetration areas will be explored.

Status: The project is in the early developmental stage. Data files are being constructed.

Health Care Alternatives Within Title XIX: Evaluation of Alternative Reimbursement Methods to Providers of Primary Care Medical Services

Project No.:	11-C-98321/5-03
Period:	April 1983-June 1986
Funding:	$ 585,675
Award:	Cooperative Agreement
Awardee:	Michigan Department of Social Services 300 South Capitol Avenue Lansing, Mich. 48909
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: The study examines the consequences of enrollment in innovative medical care organizations for the cost, effectiveness, quality, and accessibility of medical care provided to Medicaid populations in Michigan. The organizational types to be compared are:

- Health maintenance organizations.
- Capitated ambulatory plans that do not cover inpatient, dental, long-term care, or personal care.
- Physician's primary sponsor plans (PPSP's) in Wayne County that feature case management, although care is paid for on a fee-for-service basis.

These organizations form a continuum of provider risk, and they are to be compared with standard fee-for-service care. Because of data availability problems, this project was limited to a comparison of fee-for-service and PPSP's.

Status: The final report has been accepted.

Tax Equity and Fiscal Responsibility Act of 1982 Health Maintenance Organization and Competitive Medical Plan Program Evaluation

Project No.:	500-88-0006
Period:	February 1988-February 1992
Funding:	$ 3,509,701
Award:	Contract
Contractor:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543

Project Officer: James P. Hadley
Division of Health Systems and Special Studies

Description: This evaluation is designed to assess the effect of Medicare's capitation program on the use and cost of services, beneficiary choice and satisfaction, quality of care, and the fee-for-service delivery system. The evaluation is designed to build on findings from the Medicare Competition Evaluation, which examined the impact of a number of pre-TEFRA program HMO demonstrations.

Status: The first year of the evaluation will focus on an examination of HMO data systems and the availability of specific data elements, an analysis of HMO disenrollment patterns, a descriptive analysis of the HMO's participating in the TEFRA program, and an analysis of biased selection. A separate report will be produced for each of these areas of analysis.

Marketing Strategies and Risk Selection in the Tax Equity and Fiscal Responsibility Act Health Maintenance Organizations

Project No.: 17-C-99070/5-01
Period: June 1987-June 1989
Funding: $ 843,000
Award: Cooperative Agreement
Awardee: University of Michigan
School of Public Health
Department of Health Services Management and Policy
109 Observatory
Ann Arbor, Mich. 48109
Project Officer: Ruth B. Pickard
Division of Health Systems and Special Studies

Description: This project is investigating the relationship between marketing activities, consumer choice, and biased selection in the Tax Equity and Fiscal Responsibility Act health maintenance organizations (HMO's). Twenty-two geographically dispersed HMO's selected by model, maturity, market penetration, and type of marketing activities are being studied. Five categories of marketing activities: product, place, price, promotion, and enrollment process, are being characterized through interviews with marketing personnel and content analysis of all promotional materials. These will be related to the health status of plan enrollees as compared with that of the fee-for-service Medicare population in the same community to determine their effect on adverse or favorable selection experience.

Status: Site studies have been completed at each participating HMO. Three waves of beneficiary surveys have been fielded, and followup activities are under way. Content analysis of promotional materials and results of a mail survey to all cooperating HMO's are being used to develop measurement indicators of marketing activities. Data analysis is currently being implemented. The final report is expected by September 1989.

Study of the Health Maintenance Organizations That Have Not Renewed Their Tax Equity and Fiscal Responsibility Act Risk Contracts

Project No.: 99-C-98526/1-05
Period: May 1987-December 1988
Funding: $ 105,119
Award: Cooperative Agreement
Awardee: Brandeis University Research Center
(See page 66)
Task Leader: Ruth B. Pickard
Division of Health Systems and Special Studies

Description: This study will investigate the reasons why some health maintenance organizations (HMO's) and competitive medical plans have decided not to renew their active Tax Equity and Fiscal Responsibility Act (TEFRA) risk contracts. The qualitative analysis included studies of seven HMO's selected from among those failing to renew their TEFRA risk contracts at the end of calendar year 1987 to make clear the reasons for their nonrenewal decisions. Conversely, the quantitative study used nationally representative data sources to examine the relationship of organizational and market-level variables in decisions to renew risk contracts.

Status: In general, the study indicated that nonrenewal was related to lower adjusted average per capita costs, lower per capita income, fewer available physicians, less control over market factors, and a greater pent-up need among beneficiaries in the service area. The quantitative and qualitative final reports are expected by early 1989.

Constructing a Longitudinal Data Base for Health Maintenance Organizations with Medicare Risk Contracts

Project No.: 99-C-98526/1-05
Period: August 1988-July 1989
Funding: $ 50,000
Award: Cooperative Agreement
Awardee: Brandeis University Research Center
(See page 66)
Task Leader: James C. Beebe
Division of Beneficiary Studies

Description: The goal of this project is to form a small consortium of health maintenance organizations (HMO's) with the Tax Equity and Fiscal Responsibility Act risk contracts to produce utilization and cost data pertaining to their Medicare enrollment populations. This will result in producing a unified longitudinal person-level HMO data base. Phase I will involve investigation of design issues associated with data base elements for all Medicare covered services. Phase II will involve actual acquisition of plan enrollment and hospitalization data in the first year of the research for the core plans. This phase will also include the merger of the core HMO plans' data base into a person-level multiple plan file.

Status: The project is in the early developmental phase.

Medicare as a Smart Buyer of Health Care: Lessons from the Private Sector

Funding:	Brandeis University Research Center
Award:	(See page 66)
Task Leader:	James D. Lubitz Division of Beneficiary Studies

Description: What are the lessons for Medicare and Medicaid in the numerous private sector efforts to purchase health care more efficiently? This project will conduct case studies of efforts to change employee behavior, initiatives to foster provider cost consciousness (such as health maintenance organizations and preferred provider organizations), and administrative changes by firms for cost savings. The project will look for data on the cost effectiveness of these efforts.

Status: An article entitled, "Making Employers Smart Buyers of Health Care," has been published in *Business and Health*, September 1987. The final report is expected by early 1989.

Post-Health Maintenance Organization Disenrollment Utilization Study

Funding:	Intramural
Project Officer:	Ruth B. Pickard Division of Health Systems and Special Studies

Description: This study is examining all disenrollments from 38 risk contract health maintenance organizations (HMO's) during the first year of the Tax Equity and Fiscal Responsibility Act implementation. Utilization experience during the months following disenrollment is being studied for indications of access limitation prior to disenrollment or selective disenrollment practices. Use, cost, and mortality data for the period May–December 1985 form the basis for comparisons between the pre- and post-disenrollment utilization patterns of the study group and those of two matched comparison groups: beneficiaries having continuous HMO enrollment and those in the fee-for-service sector.

Status: The records of 106,575 beneficiaries are currently being studied to explain the variation in utilization patterns during the period immediately following post-disenrollment. Taking into account prior utilization experience, inpatient, outpatient, home health, and hospice data are being analyzed for correlates of costliness and intensity of service use across the study and comparison groups. A final report is expected by June 1989.

Mortality Levels Among Aged Medicare Tax Equity and Fiscal Responsibility Act Health Maintenance Organization Enrollees as a Measure of Biased Selection

Funding:	Intramural
Project Officer:	Gerald F. Riley Division of Beneficiary Studies

Description: This study will be part of the Office of Research and Demonstrations' evaluation of the Tax Equity and Fiscal Responsibility Act health maintenance organization (HMO) program. It will produce an analysis of mortality patterns among aged Medicare-risk HMO and competitive medical plan enrollees, as a measure of biased selection. Lower-than-expected mortality in the HMO will be interpreted as an indication of favorable selection and vice versa. The focus of this study will be a cross-sectional analysis of HMO mortality patterns in 1987, the most recent time period for which data are available. Mortality in each of approximately 100 plans will be compared with the mortality experience of local Medicare fee-for-service beneficiaries, controlling for demographic characteristics.

Status: Analysis files are being prepared based on data from the Medicare Statistical System. Analyses should begin in the late Fall of 1988.

Outpatient Services

New York State Products of Ambulatory Care Reimbursement Project

Project No.:	11-C-98574/2-04
Period:	September 1984–August 1990
Award:	Cooperative Agreement
Awardee:	New York State Department of Social Services 40 North Pearl Street Albany, N.Y. 12243
Project Officer:	Joseph M. Cramer Division of Hospital Experimentation

Description: The New York State Department of Social Services and the Office of Health Systems Management jointly submitted this proposal. The purpose of the project is to develop and test a prospective ambulatory care payment methodology, for both free-standing clinics and hospital-based ambulatory care services, that is predicated on a uniform cost comparison by a patient-care service classification. The project's activities can be divided into three major stages:

- Development of a patient-care classification system that associates relative resource use with patient and service characteristics in homogeneous product groups.
- Creation of payment rates composed of two components: a case-mix-related price that varies by products of ambulatory care (PAC's), but does not change by facility type or location; and a facility-specific cost that is derived from each facility's indirect costs and varies by facility.
- Demonstration and evaluation of the new system in three selected demonstration areas: the Bronx, Rochester, and the Northeast New York State Region.

New York believes that this demonstration will result in a greater understanding of the fundamental elements of

ambulatory care costs and, more importantly, the use of an equitable payment policy for pricing ambulatory care in a manner that will promote economical delivery of health care and prudent cost growth.

Status: The research phase of the project began with the design and collection of 10,000 visit surveys in a sample of freestanding and hospital outpatient clinics in the Bronx and Northeastern New York. Subsequent analysis of the data culminated in the development of 24 patient categories called PAC's. Each PAC represents a typical bundle of services commonly provided to a particular group of patients. The PAC payment methodology places all providers in the demonstration under a more uniform, completely prospective payment methodology in which a single payment is made to a facility for each visit. The PAC payment methodology will be implemented in two test areas in which a total of 17 providers will participate. Medicaid is the first active payer in the PAC demonstration. A 3-year Medicaid waiver was approved August 1, 1987, with a phase-in of the 17 facilities starting in December 1987. The project goal is to include Medicare payments in the demonstration following resolution of significant data collection and operational problems. New York also has received additional funding to examine the costs of ambulatory surgery services and to develop a case-mix adjusted ambulatory surgery classification and prospective payment methodology. They have developed 35 patient categories called products of ambulatory surgery and are completing development of the reimbursement system for ambulatory surgery.

Evaluation of New York State Products of Ambulatory Care Demonstration Project

Project No.:	500-87-0030/3
Period:	June 1988-June 1991
Funding:	$ 249,935
Award:	Technical Support: Evaluation of Demonstrations
	(See page 67)
Contractor:	Abt Associates, Inc.
	4250 Connecticut Avenue
	Washington, D.C. 20008
Project Officer:	Joseph M. Cramer
	Division of Hospital Experimentation

Description: The purpose of this project is to design and implement an evaluation of the New York State Products of Ambulatory Care (PAC) demonstration project, which will build on and supplement New York State's own evaluation plan. Its primary focus will be to evaluate the New York State PAC patient classification system and payment methodology by using the PAC "evaluation data set" being collected from the demonstration and control sites. The project will also identify other ambulatory data sources (i.e., other States) and assess their appropriateness for simulated application to the PAC patient classification and payment system.

Status: The contractor is currently collecting additional information to facilitate its evaluation.

Toward Prospective Payment for Outpatient Department Surgical Services

Project No.:	17-C-99019/3-01
Period:	June 1987-September 1989
Funding:	$ 960,254
Award:	Cooperative Agreement
Awardee:	The Urban Institute
	Health Policy Center
	2100 M Street, NW.
	Washington, D.C. 20037
Project Officer:	Thomas Talbott
	Division of Hospital Experimentation

Description: This project will provide information necessary to assist the Health Care Financing Administration (HCFA) in designing a prospective payment system for surgical procedures performed on a hospital outpatient basis, as required by Section 9343 of the Omnibus Budget Reconciliation Act of 1986. The project is composed of five major tasks:

- The first task would create a unique and rich data base by merging data from several different sources, primarily four data sets from the Medicare Statistical System (i.e., the 5-percent outpatient skeleton file, the Part B Medicare annual data (BMAD) beneficiary file, Medicare provider analysis and review file, and the hospital cost report information system file). By merging these data sets, this task will create a data base containing information on facility costs, physician-covered charges, and Medicare reimbursement for similar surgical services across four different settings: the hospital outpatient department (OPD), the inpatient hospital, the ambulatory surgical center (ASC), and the physician office.
- The second task would involve defining an episode of care by creating analysis files with the episode of care as the unit of observation.
- The third task would provide descriptive analyses aimed at providing information on variations in the costs, covered charges, and Medicare reimbursement and frequency of surgical procedures both within the outpatient hospital setting and across different settings.
- The fourth task would develop econometric models to determine facility, demographic, and market characteristics that explain differences in costs, covered charges, and Medicare reimbursement within hospital OPD's and between hospital OPD's and ACS's.
- The fifth task would be the development of a simulation model that could be used to examine the impact of alternative ratesetting approaches on facility revenues and Medicare reimbursement.

As an addendum to their contract, the Urban Institute has contracted with HCFA to develop a cost per procedure for radiology. The results will be used in the establishment of a radiology fee schedule mandated January 1, 1989. The project involved the following three tasks:

- Analyze the physician component of radiology services, using the 1985 BMAD beneficiary file.
- Construct the physician component of radiology services, using the 1985 BMAD beneficiary file.

- Approximate hospital's cost per *Current Procedural Terminology, 4th Edition* (CPT–4) radiology procedure by applying the department-specific ratio of cost to charges from the hospital cost reporting information system (HCRIS) file.

Status: Ambulatory Surgery—The Urban Institute has created their working file merging information from BMAD and HCRIS. Within their file they have identified 115 most frequently performed procedures and have calculated cost weights for each. A surgery complexity index was developed that can be used to explain hospital surgery costs. To determine how well the surgery complexity index is related to hospital costs, certain variables were controlled (e.g., teaching, nonteaching, geographical locations, disproportionate share, etc.). An econometric model has been developed from the 115 procedures and will be validated using post-October 1, 1987, hospital outpatient data that are coded in CPT–4. In addition, an analysis will be performed on similar data for freestanding ASC's, and the results will be compared with the model for use in determining payment levels within different surgical settings.
Radiology Study—Analyses of the BMAD beneficiary file are complete as well as frequency and allowed charges for radiology procedures, the use of modifiers by carriers to delineate between professional and technical components, the use of procedures codes by carriers for radiology services, and the identification of specialists other than radiologists who account for a major portion of the procedures.

Development of a Prospective Payment System for Hospital-Based Ambulatory Surgery

Project No.:	17–C–99026/1–01
Period:	July 1987–December 1989
Funding:	$ 536,902
Award:	Cooperative Agreement
Awardee:	Brandeis University Florence Heller Graduate School 415 South Street Waltham, Mass. 02254
Project Officer:	Thomas Talbott Division of Hospital Experimentation

Description: The purpose of this project is to provide information needed to assist in the development of a Medicare prospective payment system (PPS) for hospital outpatient surgery. This project will compare and evaluate the utility of two existing patient-classification systems, ambulatory visit groups (AVG's) and diagnosis-related groups (DRG's), in classifying outpatient surgery cases by relative resource intensity. The study data set consists of the Health Care Financing Administration's (HCFA) 5-percent Hospital Outpatient Bill Skeleton File for 1985 with some appended hospital-specific characteristics, such as size, teaching status, geographic location, and salaried status of the physician staff. These variables will be added through a file merger with the Provider of Services Master File. The study will determine the two systems' respective abilities to explain variation in resource use and will include a descriptive analysis of ambulatory surgery cases in the sample by type of hospital (e.g., teaching status, size, etc.). In addition, the study will recommend a payment system for ambulatory surgery based either on AVG's or DRG's or, if neither system alone is adequate, a hybrid of the two. The analysis will be limited to the facility component related to surgical cases performed in a hospital outpatient setting. The facility component associated with emergency room surgical cases and the physician component will be excluded. The general study approach involves grouping all outpatient surgical cases in this data set into DRG's and AVG's. There are approximately 200 AVG's and 81 DRG's that can be categorized as ambulatory surgery applicable to Medicare patients. Hospital costs and total covered charges for the outpatient surgical cases will be the major measures of resource consumption and will be used as the basis to develop weights for the case-mix groups for the recommended PPS. The study will test four research hypotheses:

- AVG's are likely to explain resource use for ambulatory surgery better than DRG's.
- A substantial minority of the ambulatory surgery procedures will be grouped into the two "residual DRG's," numbers 468 and 469, which are primary diagnosis unrelated to procedure and primary diagnosis invalid for admission, respectively.
- Surgical procedures will vary more widely in their resource use on an ambulatory basis compared with an inpatient basis. There may be little correlation between resources used for inpatient procedures and those used on an ambulatory basis for the same surgical procedure.
- Development of a PPS for Medicare patients' use of ambulatory care services, including surgery, is feasible and logical. This includes developing a practical working definition of, and selecting criteria for, such surgery.

Status: HCFA data have been compiled using the 1985 and 1987 data from the hospital outpatient files. Analysis of the data indicates that DRG's are not useful as a classification system for hospital outpatient surgery. The weights established for inpatient surgery could not be applied to outpatient surgery and would have to be recalculated. About one-half of the ambulatory surgery charges fell into medical rather than surgical DRG's. In addition, the DRG system is relatively complex and requires sophisticated data processing capabilities that would be difficult for the freestanding ambulatory surgery centers to adopt.
Analysis of the 1987 data indicates that:

- 25 AVG's account for approximately 75 percent of all surgical visits and 80 percent of all surgical charges.
- Minor grouping problems existed that caused surgical AVG's to be grouped into medical AVG's. The main reason was that the AVG program was developed in 1985 and has not been updated to reflect changes in the *Current Procedural Terminology, 4th Edition* (CPT–4) coding system.

- Weights were developed for approximately 190 AVG's which account for 93.4 percent of all the dollar volume for hospital outpatient ambulatory surgery.
- The coefficients of variations (CV) are lower than the CV's for the inpatient DRG's.

Review of Private Sector's Payment Methodologies for Hospital Outpatient Services

Project No.:	99-C-99168/3-01
Period:	October 1988-October 1989
Funding:	$ 40,504
Award:	Cooperative Agreement
Awardee:	Project Hope Research Center
	(See page 67)
Task Leader:	Thomas Talbott Division of Hospital Experimentation

Description: It is important that the Health Care Financing Administration have an understanding of private insurers' methodologies for outpatient services as it designs the congressionally mandated outpatient prospective payment system. This study will focus on the identification, analysis, and description of existing and developmental private payer systems. Information will be collected on outpatient payment systems for surgical and nonsurgical care. For each system, this will include all cost and data elements; a description of any patient classification system; the unit of payment; how payment rates and limits are set; and how and when payment rates are increased.

Status: This study is in the early developmental stage.

Medicare Participating Heart Bypass Center Demonstration Design

Project No.:	99-C-99168/3-01
Period:	May 1988-June 1989
Funding:	$ 157,927
Award:	Cooperative Agreement
Awardee:	Project Hope Research Center
	(See page 67)
Task Leader:	Armen H. Thoumaian Division of Hospital Experimentation

Description: The goal of this task is to help the Health Care Financing Administration (HCFA) plan and implement a preferred provider organization (PPO) demonstration for heart bypass procedures. Even though a framework has been developed for this demonstration, there is a need for detailed planning and implementation of its requirements. Actions to meet this objective include: analyzing incentives to participate in the demonstration, developing detailed payment arrangements for beneficiaries and providers, developing criteria for the selection of sites, soliciting letters of interest, assisting HCFA in evaluating proposals, helping HCFA to select sites for the demonstration, preparing waiver cost estimates, and monitoring the progress of the demonstration in the first phase of implementation.

Status: The study design has been completed and solicitation letters are expected to be sent to potential awardees by November 1988. Site selections are planned for March 1989, with actual site operations beginning in June 1989.

Market-Oriented Alternatives

Demonstration and Evaluation of Competitive Bidding as a Method to Purchase Clinical Laboratory Services

Project No.:	500-85-0052
Period:	September 1985-September 1989
Funding:	$ 1,509,605
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Paul A. Gurny Division of Hospital Experimentation

Description: The project will test the feasibility of using competitive bidding as a method to purchase clinical laboratory services in specific areas. It should provide the Health Care Financing Administration with considerable information on whether the current Medicare fee schedule for clinical laboratory tests is set at a proper level. The project consists of three phases:

- Phase I. Design the bidding model, select demonstration sites, and prepare bidding documents.
- Phase II. Administer the bidding systems.
- Phase III. Evaluate the demonstration.

The total time for the demonstration is 4 years.

Status: The contract for this outpatient clinical laboratory competitive-bidding demonstration and evaluation was awarded in September 1985. The demonstration design report has been completed by the contractor. The remaining segments of Phase I will be completed by December 1988. Moratoriums imposed by Congress will delay implementation of the demonstration until January 1, 1990. A decision on whether to proceed with implementation will depend on a review and approval of the final design by the Health Care Financing Administration, approval of the project waivers, and any additional congressionally mandated delays.

Demonstration and Evaluation of Competitive Bidding as a Method of Purchasing Durable Medical Equipment

Project No.:	500-85-0050
Period:	September 1985-September 1990
Funding:	$ 1,489,661
Award:	Contract
Contractor:	Abt Associates, Inc. 4250 Connecticut Avenue Washington, D.C. 20008
Project Officer:	Thomas A. Noplock Division of Hospital Experimentation

Description: The project will test the feasibility of using competitive bidding as a method of establishing the prices Medicare pays for durable medical equipment. The project should provide the Health Care Financing Administration with considerable information on whether the current payment levels for durable medical equipment are properly set. The project consists of three phases:

- Phase I. Design the bidding model, select demonstration sites, and prepare bidding documents.
- Phase II. Administer the bidding systems.
- Phase III. Evaluate the demonstration.

The total time of the project is 5 years.

Status: The Omnibus Budget Reconciliation Act (OBRA) of 1987 establishes a new Medicare reimbursement system for durable medical equipment and respiratory therapy services (collectively known as DME) that is scheduled to go into effect in January 1989, and also prohibits demonstrations of alternative reimbursement systems for DME until January 1, 1991. These provisions have important implications for Abt Associates' work under this contract. They rule out a major component of that contract's original scope of work—implementation of a demonstration to test competitive bidding for DME. Because of this, a revised scope of work will focus on two primary tasks. The first task will be to develop a simulation model of Medicare payments for DME that can be used to estimate HCFA's costs under alternative reimbursement systems, including the current system and, in contrast, the new OBRA system. The second task will be to examine the DME ratesetting approaches of other third-party payers (such as the Veterans Administration, private insurance companies, and health maintenance organizations) to determine which systems result in competitively set prices, and, of those, which could be adapted for HCFA's use in administering Medicare.

Skilled Nursing Facilities and Home Health Services

Study of Management Minutes, Resource Utilization Groups-II, and Other Resource Management Systems

Project No.:	HCFA-86-0964
Period:	September 1986-June 1987
Funding:	$ 23,667
Award:	Contract
Contractor:	University of Michigan Institute of Gerontology 300 North Ingalls Ann Arbor, Mich. 48109
Project Officer:	Dana B. Burley Division of Long-Term Care Experimentation

Description: Under this project data analyses were performed to compare different case-mix systems that are currently in use or being developed, including the Resource Utilization Groups-II (RUGS-II) and "management minutes" methodologies. The data bases included:

- Data from New York that describe the characteristics and nursing resource use of 3,400 patients in 52 New York State nursing homes.
- Data from Texas on the characteristics and nursing resource consumption of 2,000 nursing home residents.
- A Medicare data set that describes patient characteristics and nursing and other resource use by 1,700 Medicare patients and 600 non-Medicare patients in 38 nursing homes in 5 States.

The analyses addressed the relationships between patient resource management systems and actual nursing time predicted, resource consumptions, and classification systems.

Status: The study found that the RUGS-II system ranked only slightly better than the other systems in explanation of variance, but it displayed consistency across data sources as well as across the several comparison criteria employed. The "management minutes" and Minnesota systems proved to be only slightly less attractive than the RUGS-II system. They are well designed and rate well on the multiple criteria evaluated. These findings support the study's underlying assumption that the choice of a resource measurement system needs to be made on a variety of criteria, not only on the variance explanation, the criterion most often referenced in the literature.

Alternative Nursing Home Reimbursement Systems for Medicare

Project No.:	16-C-98274/3-01
Period:	January 1983-December 1987
Funding:	$ 450,601
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: This study analyzed alternative approaches to prospective payment for Medicare skilled nursing facilities (SNF's) and investigated administrative factors that affect the efficiency of patient-related, rate-payment systems. The data used in this study were derived from 1980 Medicare cost reports and the Medicare/Medicaid automated certification system. The merging of these files produced a data base that included 3,492 of the 4,900 Medicare-certified SNF's filing cost reports in 1980. These sample facilities accounted for roughly seven-eighths of all Medicare patient days provided that year. The data files were subsequently updated with 1982 and 1983 data.

Status: This project provided much of the technical analysis contained in the "Study of the Skilled Nursing Facility Benefit Under Medicare," that was submitted to the Congress in January 1985. In addition,

results from this project were published in two articles and a working paper:

- "State ratesetting and its effects on the cost of nursing home care," *Journal of Health Politics, Policy and Law*, Vol. 9 No. 4, Winter 1985.
- "Cost and case-mix differences between hospital-based and freestanding nursing homes," *Health Care Financing Review*, Vol. 7, No. 3, Spring 1986.
- "Medicare Reimbursement Policy for Skilled Nursing Facility Care: Issues and Options," Working Paper 3267-02, The Urban Institute, July 1987.

The final report is available through the National Technical Information Service: "Simulations of Alternative Nursing Home Reimbursement Systems," accession number PB88-245543/AS.

Extending the Medicare Prospective Payment System to Post-Hospital Care: Preparing for a Demonstration

Project No.:	95-C-9907619-01
Period:	June 1987-December 1989
Funding:	$ 914,842
Award:	Cooperative Agreement
Awardee:	The Rand Corporation 1700 Main Street Santa Monica, Calif. 90406
Project Officer:	Kathleen M. Farrell Division of Hospital Experimentation

Description: The purpose of this project is to consider the issues and options in the design of an extended Medicare prospective payment system (PPS). The extended prospective payment system would bundle hospital, skilled nursing facility, home health care, and rehabilitation hospital services into a single prospective payment for an entire episode of care. The initial phase of this project, funded by the Health Care Financing Administration (HCFA) and conducted by the Rand Corporation, laid out the rationale for the structure of an extended PPS. It also described, in general, how a demonstration of the proposed PPS might be designed and implemented. The basic concept is that payments would be made to the hospital or a third party comprehensive Part A payer for both inpatient and post-hospital care that would not be contingent upon actual use of post-hospital services. Payments would continue to be based on diagnosis-related groups. This phase further refined the demonstration design, considered criteria for selecting demonstration sites, and developed an evaluation plan.

Status: Passage of the Catastrophic Coverage Act of 1988 has resulted in the expansion of some Medicare benefits, necessitating a recalculation of the post-acute utilization weights and reimbursement add-on for selected diagnosis-related groups. Rand is in the process of developing these new utilization and cost projections.

Home Health Agency Prospective Payment Demonstration

Project No.:	500-84-0021
Period:	December 1983-December 1988
Funding:	$ 2,839,501
Award:	Contract
Contractor:	Abt Associates, Inc. 1055 Thomas Jefferson Street, NW. Washington, D.C. 20007
Project Officer:	William D. Saunders Division of Long-Term Care Experimentation

Description: The purpose of this project is to develop and test alternative methods of paying home health agencies on a prospective basis for services furnished under the Medicare program. The demonstration will enable the Health Care Financing Administration (HCFA) to evaluate the effects of various methods of prospective payment on health care expenditures, quality of home health care, and home health agency operations.

Status: A contract was awarded in December 1983 to Abt Associates for development and implementation of the demonstration. After the project design was completed, HCFA decided not to implement the earlier demonstration. However, in response to Section 4027 of the Omnibus Budget Reconciliation Act of 1987, which directs HCFA to conduct a demonstration of prospective payment for home health agencies, Abt now is working with HCFA to develop an updated project design and to assist HCFA in implementing the demonstration. At this time, HCFA and Abt are finalizing details of the proposed design. As part of this effort, Abt is also performing analysis of home health agency plan of treatment, claim, and cost report data to provide HCFA with information about length of home health episodes and the relationship between patient characteristics and resource use. The operations phase of the demonstration is expected to begin in mid-1989.

Capitated Community Nursing Organizations

Project No.:	99-C-99168/3-01
Period:	August 1988-November 1989
Funding:	$ 196,109
Award:	Cooperative Agreement
Awardee:	Project Hope Research Center (See page 67)
Task Leader:	Marvin A. Feuerberg Division of Long-Term Care Experimentation

Description: The purpose of this project is to assist the Health Care Financing Administration in designing a project under Section 4079 of the Omnibus Budget Reconciliation Act of 1987 to provide Medicare payment on a prepaid, capitated basis to community nursing organizations. The overall general framework for this demonstration has been mandated by Congress. However, the detailed planning and implementation of these general requirements have to be undertaken. Actions associated with this aspect include: developing site selection criteria, soliciting applications for participation in the project from eligible organizations, determining quality assurance mechanisms and marketing strategies appropriate for these sites, assisting in

evaluating proposals, selecting demonstration sites, and developing an evaluation strategy.

Status: The project is in the early developmental stage.

End Stage Renal Disease

Design of a Demonstration and Assessment of Competitive Health Insurance Proposals in the End Stage Renal Disease Program

Project No.:	14-C-98275/3-03
Period:	March 1983-June 1988
Funding:	$ 1,472,772
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: The purpose of the initial award was to determine the feasibility of demonstrations to test competitive financing approaches in the end stage renal disease (ESRD) program. In 1985, a competitive bidding demonstration was implemented but was unsuccessful. In 1986 and 1987, the project consisted of a series of papers related to the feasibility of competitive financing for ESRD. In 1988, under this cooperative agreement, Urban Institute initiated a study of access to kidney transplantation.

Status: Urban Institute studied the competitive bidding demonstration and prepared the following reports:

- "Implementing Competitive Bidding in Public Medical Programs," September 1985.
- "Competitive Bidding and Vouchers for Kidney Dialysis," January 1986.
- "Privatization and Bidding in the Health Care Sector," October 1986.

Additional reports produced by the Urban Institute under this cooperative agreement and related to the feasibility of competitive financing for ESRD include:

- "How to Measure Case-Mix Differences," June 1986.
- "Measures of Case-Mix in the End Stage Renal Disease Program," May 1987.
- "Full Capitation for End Stage Renal Disease Services," October 1987.

The study of access to kidney transplantation is expected to produce a final report by Winter 1988.

Capitation Payment System for all End Stage Renal Disease Services

Project No.:	95-C-98497/9-02
Period:	January 1985-April 1988
Funding	$ 424,426
Award:	Cooperative Agreement
Awardee:	El Camino Hospital District Corporation 2500 Grant Road Mountain View, Calif. 94042
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: The purpose of this project was to develop and test the concept of a disease management organization under which capitation payments would cover all Medicare benefits for end stage renal disease (ESRD) patients.

Status: The project had 3 years of planning and development, and concluded when implementation proved to be infeasible. The awardee was unable to recruit the necessary number of providers to show that it would be cost effective to change the method of reimbursement under the Medicare program for ESRD patients. Without adequate support for the approach, as designed, it was decided not to proceed with the implementation of the demonstration. A final report is expected by Winter 1988.

Other Studies

Program for Prepaid Managed Health Care

Project No.:	11-P-98715/3-03
Period:	August 1985-January 1989
Award:	Grant
Grantee:	Maryland Department of Health and Mental Hygiene 201 West Preston Street Baltimore, Md. 21201
Project Officer:	John F. Meitl Division of Health Systems and Special Studies

Description: This project involves 2 of the 13 program sites funded under the Robert Wood Johnson Foundation/Health Care Financing Administration (HCFA) program for prepaid managed health care. The program is cosponsored by the National Governors' Association. It is designed to enable medical institutions, working with State and Federal governments and private health insurers, to develop more efficient arrangements for the financing and delivery of health services. This Medicaid project utilizes capitation payment and case management and will offer 12 months of guaranteed eligibility as a participation incentive. The two sites are the Chesapeake Health Plan (CHP) and the Johns Hopkins Health Plan (JHHP), both in Baltimore, Maryland.

Status: Enrollment with the 12 months of guaranteed eligibility began at JHHP in February 1986 and at CHP in March 1986. The final year of the demonstration will end on January 31, 1989. Neither CHP nor JHHP will participate in the partial randomization evaluation design that is being conducted by the Rand Corporation.

Health Care Plus: The Lutheran Medical Center Program for Prepaid Managed Health Care

Project No.:	11-P-98716/2-03
Period:	August 1985-June 1989
Award:	Grant
Grantee:	New York Department of Social Services 40 North Pearl Street Albany, N.Y. 12243
Project Officer:	John F. Meitl Division of Health Systems and Special Studies

Description: This is 1 of 13 program sites funded under the Robert Wood Johnson Foundation/Health Care Financing Administration (HCFA) program for prepaid managed health care. The program is cosponsored by the National Governors' Association. It is designed to enable medical institutions, working with State and Federal governments and private health insurers, to develop more efficient arrangements for the financing and delivery of health services. This Medicaid project utilizes capitation payment and case management and offers 6 months of guaranteed eligibility as a participation incentive. The Lutheran Medical Center is a teaching hospital that serves the residents of the Sunset Park neighborhood of Southwest Brooklyn, New York.

Status: The State implemented the waivers for this program on July 1, 1986. The project is currently in the third year of a 3-year operational phase. As of May 1988, the number of Aid to Families With Dependent Children recipients that have been enrolled in the program is 2,622. Total enrollment at the end of the demonstration is projected to be 2,980.
New York participated in the partial randomization evaluation design that is being conducted by the Rand Corporation. Analyses, which focus on selection and rate-setting issues, are in progress. Additional analyses comparing plan and fee-for-service use during the first year of enrollment and outcomes after the 6 months of enrollment are also planned.

Evaluation of the Prepaid Managed Health Care Demonstration

Project No.:	99-C-98489/9-05
Period:	September 1985-July 1990
Funding:	$ 2,142,206
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Spike Duzor Division of Health Systems and Special Studies

Description: The Rand Corporation is conducting an independent evaluation of the cost effectiveness of the prepaid managed health care demonstration. This demonstration project is being sponsored jointly by the Robert Wood Johnson Foundation, the National Governors' Association, and the Health Care Financing Administration. The demonstration is designed to enable health care providers to develop more efficient arrangements for the financing and delivery of health services. Most projects will be limited to Medicaid and will utilize prospective payment and case management.

Status: The Rand Corporation is focusing its evaluation on two sites, Lutheran Medical Center, Brooklyn, New York, and Jackson Memorial Hospital, Miami, Florida. The key element of Rand's research design is the random assignment of Medicaid clients to either the health maintenance organization demonstration or the fee-for-service setting. Approximately 680 Aid to Families with Dependent Children families per site were to participate in the random assignment process. All clients have been enrolled in the study and their health care expenditures are being monitored. By Spring 1989, Rand will produce several reports highlighting the ratesetting process and marketing issues in the demonstration. A final cost-effectiveness report will be completed by Fall 1990.

Independent Broker: Coordinating Open Enrollment for Medicare Health Maintenance Organizations and Competitive Medical Plans

Project No.:	95-C-98750/1-03
Period:	September 1985-March 1988
Funding:	$ 276,173
Award	Cooperative Agreement
Awardee:	HealthChoice, Inc. 621 SW. Alder, Suite 820 Portland, Ore. 97205
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: HealthChoice, Inc., received a cooperative agreement to test the efficiency of the broker model in informing and educating Medicare eligibles on the health maintenance organization (HMO)/ competitive medical plan (CMP) options available under the Medicare program. The broker model offers an array of HMO options during a coordinated open enrollment period. Los Angeles and San Francisco, California are the two sites chosen for implementation of the demonstration. An independent evaluation is to be conducted that will assess the demonstration's success in meeting its key objectives: provide a replicable model for implementing a coordinated open enrollment; develop a cost-effective model for producing and distributing objective information on HMO options; and increase beneficiary comprehension of available Medicare health coverage options.

Status: In San Francisco, three HMO's participated in a coordinated open enrollment period in 1986. Direct mail information was sent to 118,000 Medicare beneficiaries. Additional outreach efforts included regular contact with senior organizations, newspaper advertising, referrals through Social Security offices, and distribution of posters to places where seniors and disabled assemble. The response rate to HealthChoice information was low

(1.7 percent). Although the rate was not low for most direct mail campaigns, it was lower than projected. HealthChoice attributed the low response to a saturated market and a short open enrollment period. Although a second open enrollment was to occur in San Francisco, it did not because the HMO's closed Medicare enrollment for the study period. In Los Angeles, open enrollment was implemented in 1987 for 90 days. A low response rate also occurred in Los Angeles. The three HMO's participating in the demonstration did not want to proceed with a second enrollment period. The demonstration ended earlier than planned in March 1988. The final report has been received and is being reviewed. An independent evaluation study is expected to be completed in 1989. The evaluation is to investigate HealthChoice's effect upon HMO enrollment/disenrollment rates and beneficiary understanding of HMO procedures.

Evaluation of HealthChoice, Inc.—Independent Broker

Project No.:	500-87-0028-7
Period:	October 1987-September 1989
Funding:	$ 163,938
Award:	Technical Support: Evaluation of Demonstrations
	(See page 67)
Awardee:	Mathematica Policy Research, Inc.
	P.O. Box 2393
	Princeton, N.J. 08543-2393
Project Officer:	Robin J. Brocato
	Division of Health Systems and Special Studies

Description: The HealthChoice, Inc. (HCI) demonstration in San Francisco and Los Angeles was initiated in 1985 to determine whether an independent broker, working cooperatively with participating health maintenance organizations (HMO's), could be an effective mechanism for disseminating information and increasing Medicare beneficiaries' understanding of their health care alternatives. The purpose of the evaluation of HCI is to assess the effectiveness of HCI through an indepth case study of HCI and HMO participants; to examine the impacts of HCI on beneficiary awareness, enrollment, and disenrollment rates; and to determine the nature and extent of biased selection in Medicare HMO's. The following questions will be addressed in the evaluation:

- Is the broker concept feasible?
- To what extent has the demonstration increased beneficiary awareness and understanding of Medicare HMO's?
- What was the impact of the demonstration on Medicare HMO enrollment and disenrollment rates?
- What was the impact of the demonstration on the nature and extent of biased selection in Medicare HMO's?
- How was the broker concept implemented in each market? What were the strategies and experiences of HCI and participating HMO's during the planning and implementation phase, and what were the perceptions and reactions of other market participants?

Status: The final evaluation report should be available in early 1989.

Planning Grant for a Medicare Buy-Right Demonstration

Project No.:	95-C-99117/5-01
Period:	June 1987-June 1988
Funding:	$ 70,000
Award:	Cooperative Agreement
Awardee:	Center for Policy Studies
	2221 University Avenue, SE., Suite 134
	Minneapolis, Minn. 55414
Project Officer:	Spike Duzor
	Division of Health Systems and Special Studies

Description: The buy-right concept is designed to assist Medicare beneficiaries and Medicare retiree group insurers to assess the quality and efficiency of health care providers, and provide beneficiaries and group insurers with appropriate information and incentives to choose providers that are rated high in quality and cost efficiency. The original scope of this award was for planning activities necessary to conduct a Medicare buy-right demonstration, including designing the methodology to assess quality, selecting an experimental and control group, and developing provider contracts. The implementation phase would be covered by future competitively awarded cooperative agreements. This planning/designing study was related to similar work that the Center for Policy Studies was doing in the private health insurance sector. Early in the Medicare demonstration design phase, it became obvious that it was premature at this time to conduct a Medicare buy-right demonstration. Consequently, the Center for Policy Studies focused its attention on investigating issues of inpatient quality of care measurements.

Status: A final report will be available in early 1989. The report will explore methods for improving measures of provider quality of care and efficiency by determining the feasibility of integrating population-based rates of utilization ("macro-level" analysis) with corresponding measures of per-case resource consumption and outcomes ("micro-level" analysis).

Social Health Maintenance Organization Project for Long-Term Care

Period:	August 1984-September 1992
Award:	Cooperative Agreement
Project Officers:	William D. Clark and Robin J. Brocato
	Division of Long-Term Care Experimentation
	Division of Health Systems and Special Studies

Description: In accordance with the congressional mandate (Public Law 98-369, Section 2355), this project developed and is currently implementing the concept of a social health maintenance organization (S/HMO) for acute and long-term care. A S/HMO

integrates health and social services under the direct financial management of the provider of services. All services are provided by or through the S/HMO at a fixed annual prepaid capitation sum. The demonstration has been extended through 1992 by Section 4018 of Public Law 100–203.

Status: Four S/HMO demonstration sites include two HMO types that have added long-term care services to their service packages and two long-term care providers that have added acute care services to their service packages. The sites have developed a common service package, financing plans, and risk-sharing arrangements. The demonstration sites utilize Medicare and Medicaid waivers. All four sites had initiated service delivery by March 1985. During the first 30 months of operations, the Federal and State governments shared financial risk with the sites. This risk sharing ended August 31, 1987. The S/HMO sites are:

Elderplan, Inc.
Project No.: 95–P–09101/2–03
Award: Grant
Grantee: Elderplan, Inc.
1276 50th Street
Brooklyn, N.Y. 11219
Project Officer: William D. Clark

Senior Plus
Project No.: 95–P–09102/5–03
Award: Grant
Grantee: Group Health Inc. and Ebenezer Society
2829 University Avenue, Southeast
Minneapolis, Minn. 55414
Project Officer: Robin J. Brocato

Medicare Plus II
Project No.: 95–P–09103/0–03
Award: Grant
Grantee: Kaiser-Permanente Center for Health Research
4610 Southeast Belmont Street
Portland, Ore. 97215–1795
Project Officer: Robin J. Brocato

SCAN Health Plan
Project No.: 95–P–09104/9–03
Award: Grant
Grantee: Senior Care Action Network
521 East Fourth Street
Long Beach, Calif. 90802
Project Officer: William D. Clark

An evaluation is being performed by the Aging Health Policy Center at the University of California, San Francisco.

Status: The following publications have been produced:

- "The Social HMO Demonstration: Early Experience," *Health Affairs,* Summer 1988.
- "The SHMO: A professional and organization challenge," in *Reshaping Health Care for the Elderly,* Baltimore, Maryland, Johns Hopkins University Press, Forthcoming.
- "Long-term care insurance: Will it sell?" *Business and Health,* November 1986.
- "The social health maintenance organization and long-term care," *Generations,* Vol. 9, No. 4, Summer 1985.
- "The national social health maintenance organization demonstration," *Journal of Ambulatory Care Management,* Vol. 8, No. 4, September 1985.
- "The social health maintenance organization: A vertically integrated prepaid care delivery system for the elderly." *Health Care Financial Management,* Vol. 38, No. 10, October 1984.
- "The social health maintenance organization and its role in reforming the long-term care delivery system," *Conference Proceedings: Long-Term Care Financing and Delivery Systems: Exploring Some Alternatives,* HCFA Pub. No. 03174, Washington, U.S. Government Printing Office, June 1984.
- *Changing Health Care for the Aging Society: Planning For The Social Health Maintenance Organization,* Lexington, Maine, Lexington Books, 1985.

Evaluation of Social Health Maintenance Organization Demonstrations

Project No.: 500–85–0042
Period: September 1985–December 1989
Funding: $ 2,388,622
Award: Contract
Contractor: University of California, San Francisco
Aging Health Policy Center
San Francisco, Calif. 94143
Project Officer: William D. Clark
Division of Long-Term Care Experimentation

Description: The social health maintenance organization (S/HMO) seeks to enroll, voluntarily, persons 65 years of age or over in an innovative prepaid program that integrates medical, social, and long-term care delivery systems. The S/HMO merges the health maintenance organization concepts of capitation financing and provider risk-sharing developed by the Health Care Financing Administration (HCFA) under its Medicare capitation and competition demonstrations with the case-management and support services concepts underlying the Department of Health and Human Services (DHHS)-sponsored long-term care demonstrations serving the chronically ill aged. Preliminary evaluation results were submitted to Congress (mandated by Public Law 98–369) and will be used by HCFA and DHHS to assess whether the S/HMO concept should be fostered through changes in prepaid Medicare contracting regulations.

Status: This contract was awarded in September 1985. An interim report was forwarded to Congress on August 15, 1988.

Minnesota Prepaid Medicaid Demonstration

Project No.:	11-C-98223/5-05
Period:	June 1982–June 1990
Funding:	$ 349,421
Award:	Cooperative Agreement
Awardee:	Minnesota Department of Public Welfare 2nd Floor–Space Center 444 Lafayette Road St. Paul, Minn. 55101
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: Minnesota was awarded a cooperative agreement to develop a prepaid capitation demonstration project for the eligible Medicaid population in three counties: one urban, Hennepin; one suburban, Dakota; and one rural, Itasca. For all counties, the per capita payment will be calculated based on the average fee-for-service cost per eligible in the program in each county. This rate will be paid to competing health plans who organize to provide services to Medicaid recipients within the urban and suburban counties. A rate-cell approach is being used to pay capitation rates. The cells incorporate adjustments for age, sex, category of eligibility, county of residence, and institutional and Medicare status. The capitation rate for Aid to Families with Dependent Children (AFDC) recipients will be 90 percent of the fee-for-service costs. For Supplemental Security Income recipients, the rate will be 95 percent of the fee-for-service costs. The demonstration plans to enroll the AFDC, Aged, Blind, and Disabled, including mentally retarded and mentally ill populations, in prepaid health plan arrangements. In Hennepin County, an experimental group consisting of 35 percent of the Medicaid population will be randomly selected to participate in the project. In Dakota County, the mental health/chemical dependency portion of the rate will be broken out and paid separately to the county. The county has chosen to bear both the risk and responsibility of providing these services. The rural county will not have competing plans. The capitation will go to Itasca County, which has contracted with Health Maintenance Organization of Minnesota for claims processing and management services. Health Maintenance Organization of Minnesota will coordinate the case management and utilization controls and supervise local providers in delivering services to the Medicaid population.

Status: The State submitted an operational protocol that was approved by the Health Care Financing Administration in September 1985. The project began the implementation phase in Itasca County in September 1985 and in Hennepin and Dakota Counties in December 1985. There are presently five participating competing plans in Hennepin and Dakota Counties. Initial enrollment was slower than anticipated because of failure of recipients to make choices (30 percent assignment rate); however, enrollment is now at 25,000. This project is included in the evaluation conducted by Research Triangle Institute. The demonstration was scheduled to end in December 1988 but was extended to June 1990 by Congress.

Municipal Health Services Program

Period:	August 1979–December 1989
Participants:	Baltimore, Md. Cincinnati, Ohio Milwaukee, Wis. San Jose, Calif.
Project Officer:	Robin J. Brocato Division of Health Systems and Special Studies

Description: Development of the Municipal Health Services Program (MHSP) was a collaborative effort of four major cities in four States, the U.S. Conference of Mayors, the Robert Wood Johnson Foundation (RWJF), and the Health Care Financing Administration (HCFA). It was initiated by RWJF through grants of $3 million awarded in June 1978 to each of the following four cities: Baltimore, Cincinnati, Milwaukee, and San Jose. HCFA joined in the project by providing Medicare and Medicaid waivers to test the effects of increased utilization of municipal health centers by:

- Eliminating coinsurance and deductibles.
- Expanding the range of covered services.
- Paying the cities the full cost of delivering services at the clinics.

The intent of the waivers is to shift fragmented utilization away from costly hospital emergency rooms and outpatient departments toward lower cost Municipal Health Services Program clinics that would provide beneficiaries with comprehensive primary and preventive health care.

Status: HCFA contracted with the University of Chicago's Center for Health Administration Studies (CHAS) to perform a detailed evaluation of cost and utilization. CHAS determined in its final evaluation report that MHSP improved access to health services by reaching certain targeted groups and provided an alternative source of care that appeared to be better on most convenience measures, such as travel time. The analysis indicated that MHSP clients in the Medicare program had significantly lower inpatient and total health care expenditures than a comparison group, after adjusting for predisposing, enabling, and need variables. No additional evaluation is planned for the period covered by this waiver extension. Waivers were scheduled to terminate on December 31, 1984; however, in response to proposals from the cities to go at full risk and capitate Medicare Parts A and B services in 1986, HCFA agreed to extend the Medicare waivers 1 additional year, through December 1985. The projects were notified by HCFA in January 1985 that any capitated health care delivery systems developed during the extension period would be expected to meet the Tax Equity and Fiscal Responsibility Act health maintenance organization (HMO)/competitive

medical plan requirements by December 31, 1985. This was to ensure that the MHSP delivery site could continue to provide services to Medicare beneficiaries when waivers ended. Subsequently, the sites responded that they or HMO's with which they would contract as service delivery sites could not meet the enrollment-mix criterion (no more than 50 percent Medicare/Medicaid enrollment) within that timeframe. The sites sought and obtained the passage of legislation enabling the demonstrations to continue through December 1989.

Florida Alternative Health Plan Project

Project No.:	11-C-98231/4-06
Period:	June 1982–September 1989
Funding:	$ 729,114
Award:	Cooperative Agreement
Awardee:	State of Florida 1317 Winewood Boulevard Tallahassee, Fla. 32301
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: The State of Florida developed and implemented an alternative health plan demonstration to provide a continuum of health care and social support services to frail elderly Medicaid recipients. Mt. Sinai Medical Center in Miami will provide comprehensive health services to 200 Medicaid recipients. In cooperation with several community affiliations, it provides outreach services to the community that include transportation, personal emergency response, in-home and community social and medical care, home assessment, and health education and prevention training. Eligible clients are those Medicaid recipients who are at risk of nursing home placement and could live in the community if a full range of coordinated services were made available to them. Mt. Sinai is paid a capitation rate set at 98 percent of an equivalent fee-for-service amount and is at risk for the cost of all services. The demonstration will be independently evaluated through a separate contract.

Status: Enrollment began in September 1987 and has remained low at 75 members. The State and Mt. Sinai have submitted utilization and cost reports indicating that the alternative health plan is financially viable. The State anticipates a maximum enrollment at approximately 100 before it has to begin a phase-down 6 months before the demonstration's scheduled termination date.

Evaluation of the Florida Alternative Health Plans Project

Project No.:	500-87-0028-DO 11
Period:	September 1988–May 1990
Funding:	$ 122,262
Award:	Technical Support: Evaluation of Demonstrations
	(See page 67)
Awardee:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	Ruth B. Pickard Division of Health Systems and Special Studies

Description: This project will evaluate the demonstration of a capitated model for the delivery of health care and social support services to those frail elderly among the Medicaid population who would otherwise be at risk of premature institutionalization. The study will assess the feasibility of using case-management techniques to coordinate a variety of services under a single provider who would also assume full financial risk for the cost of such care. In particular, the evaluation will seek to determine the adequacy of the rate-setting methodology, the cost effectiveness of the case-management program, and the degree of satisfaction with these arrangements among the providers, as well as among both the frail elderly clients and their informal-caregiver agents.

Status: The initial design work is under way. A final report is due September 1990.

Arizona Health Care Cost-Containment System

Project No.:	11-P-98239/9-07
Period:	June 1982–September 1989
Award:	Grant
Grantee:	Arizona Health Care Cost-Containment System Administration 801 East Jefferson Phoenix, Ariz. 85034
Project Officer:	Sidney Trieger Division of Health Systems and Special Studies 410

Description: This project is designed to test the effectiveness of establishing under the Social Security Act, Title XIX, a Medicaid program based on competitive principles, including primary care physicians acting as gatekeepers, prepaid capitated contracts, competitive bidding, the use of nominal copayments, limited restrictions on freedom of choice, and capitated payment by the Health Care Financing Administration (HCFA). The Arizona Health Care Cost-Containment System (AHCCCS) was implemented October 1, 1982, and has been operating for 6 years.

Status: In May 1988, AHCCCS submitted a proposal to incorporate a new long-term care component into their demonstration called the Arizona Long-Term Care System (ALTCS). AHCCCS proposes to continue the acute care demonstration and test the new ALTCS over a 5-year period. The ALTCS will be operated as a separate component from the acute program. While acute services will continue to be provided by health plans, long-term care (LTC) services will be provided primarily through capitated contracts by the State with counties. The major features of the ALTCS are:

- County and State governments share the burden for financing the non-Federal portion of the program.

- The State will initially be at limited financial risk for service provision to the developmentally disabled (DD) and elderly and physically disabled (EPD) through prospective payments received from the Federal Government.
- By the fourth year of the program, the State will be at full risk for both the EPD and the DD through capitation payments by HCFA.
- Program contractors will be at financial risk for providing services through prepaid capitation payments made by the State.
- Prevention of member dumping and promotion of cost effectiveness by bundling LTC and acute care services into one capitation rate.
- Ensuring that clients at risk for institutionalization are treated in the least restrictive, most cost-effective manner by providing the full continuum of LTC services from skilled nursing homes to home- and community-based (HCB) services to the DD population and limited to a maximum 5-percent funding of HCB services for the EPD populations.
- Procuring LTC services through competitive bidding and selective contracting.
- Employing strong program controls, including a stringent preadmission screening program, case management, quality assurance, quality control, uniform accounting and reporting, and auditing.

The AHCCCS acute care program has been extended pending completion of review and approval of the expanded 5-year demonstration proposal.

Evaluation of the Arizona Health Care Cost-Containment System

Project No.:	500-83-0027
Period:	June 1983-December 1988
Funding:	$ 4,017,610
Award:	Contract
Contractor:	SRI International, Inc. 33 Ravenswood Avenue Menlo Park, Calif. 94025
Project Officer:	William L. England Division of Health Systems and Special Studies

Description: This project will evaluate the implementation, operation, and impact of the Arizona Health Care Cost-Containment System (AHCCCS), which is a unique and innovative State-sponsored demonstration that provides public assistance medical care (medical assistance) to residents of Arizona who are eligible for Aid to Families with Dependent Children and Supplemental Security Income cash payments. The study will focus on measuring the effects of AHCCCS on cost, quality, and utilization of health care as well as issues related to patient access and satisfaction. The following major innovative cost-containment methods, which are unique to Arizona among all States Medicaid programs, will be evaluated:

- Capitation prepayment contracts, awarded as a result of competitive bidding, to health care plans that provide or arrange for the provision of covered services.
- "Gatekeeping" by a primary care physician who will be responsible for either providing or authorizing the services to be reimbursed for the enrollees, including any services provided by specialists.
- Use of nominal copayments as a means of inhibiting unnecessary utilization.
- Restriction on freedom of choice of plans and providers.
- Capitated payment of Federal financial participation by the Health Care Financing Administration to the State of Arizona based on the number of enrollees.

Status: SRI has produced the following documents:

- A literature review on the major study topics and the methodologies for their evaluation.
- An evaluation plan that details the issues to be addressed by the study and the methodological approaches to be utilized.
- Three case studies that describe the events that occurred during the first 4 years of the AHCCCS program operation.
- Two reports on the cost of AHCCCS covering the first 3 years of the program compared with the cost of traditional Medicaid programs.
- A report on the access to care and satisfaction of beneficiaries served by the AHCCCS program.

The following additonal reports are expected before the completion of the evaluation contract in December 1988.

- A report on quality of care in AHCCCS compared with traditional Medicaid programs.
- A report on cost of AHCCCS in the fourth and fifth year of the program compared with the cost of traditional Medicaid programs.
- A report on the utilization of services in AHCCCS.

Senior Group Health Plan Waiver-Only Medicare Competition Demonstration Program

Project No.:	95-C-98625/4-03
Period:	October 1984-May 1988
Award:	Cooperative Agreement
Awardee:	Finlay Medical Centers Health Maintenance Organization Corporation 1401 Brickell Avenue, Suite 603 Miami, Fla. 33131
Project Officer:	Ronald W. Deacon Division of Health Systems and Special Studies

Description: Finlay Medical Centers Health Maintenance Organization Corporation received a waiver-only cooperative agreement award on October 1, 1984. Finlay is a staff-model health maintenance organization (HMO) that is State-qualified and implemented a risk capitation at 85 percent of the adjusted average per capita cost (AAPCC) in Dade and Broward Counties in Florida. Finlay offers prescription drugs, eye examinations and glasses, hearing examinations and aids, and a dental plan at no premium to the Medicare enrollees. It competes with several Tax Equity and Fiscal Responsibility Act HMO's in the Miami market that receive payment at 95 percent of the AAPCC.

Status: Finlay submitted its draft protocol with marketing materials in November 1984. Marketing began February 1, 1985, and enrollment began March 1, 1985, with membership eventually reaching 7,000 Medicare beneficiaries. Because of problems relating to financial viability and beneficiary access that were uncovered in a compliance review, Finlay's HMO contract was terminated in May 1988. The beneficiaries either returned to traditional fee-for-service Medicare or enrolled in one of the several other HMO's operating in the Miami market.

Evaluation of the Medicare Competition Demonstrations

Project No.:	500-83-0047
Period:	October 1983-January 1989
Funding:	$ 3,797,219
Award:	Contract
Contractor:	Mathematica Policy Research, Inc. Suite 550 600 Maryland Avenue, SW. Washington, D.C. 20024
Project Officer:	James P. Hadley Division of Health Systems and Special Studies

Description: The Health Care Financing Administration is sponsoring an evaluation of a major series of demonstrations, designed to introduce significant competition into the market for providing health services to Medicare beneficiaries. The evaluation focuses on 20 health maintenance organizations (HMO's) and other competitive medical plans (CMP's) throughout the United States that provide health services to Medicare beneficiaries for a prospectively determined payment. These sites originally started as demonstrations, but they continued to serve Medicare beneficiaries under the Tax Equity and Fiscal Responsibility Act of 1982. This evaulation focuses on the following major policy issues:

- What are the impacts of enrollment of Medicare beneficiaries by HMO's and CMP's under risk-based capitation on the use, quality, and cost of care?
- What are the determinants of consumer choice of HMO's and CMP's? What marketing strategies are pursued by HMO's and CMP's?
- Does biased selection occur, and if so, what is its nature and extent?

Status: The evaluation began in October 1983. The following reports are available from the National Technical Information Service (NTIS).

- "The Implementation of the Medicare Competition Demonstration: A Report from the National Evaluation of the Medicare Competition Demonstrations," accession number PB86-180015/AS.
- "Evaluation of the Medicare Competition Demonstrations: A Preliminary Analysis of the Use and Cost of Services-Aggregate Health Maintenance Data," accession number PB86-245388/AS.
- "The Structure of Quality Assurance Programs in Health Maintenance Organizations and Competitive Medical Plans Enrolling Medicare Beneficiaries," accession number PB87-207163/AS.
- "Enrollment and Disenrollment in Medicare Competition Demonstration Plans: A Descriptive Analysis," accession number PB87-207189/AS.
- "Second Annual Report, National Medicare Competition Evaluation," accession number PB87-206561/AS.
- "Biased Selection in the Medicare Competition Demonstrations," accession number PB89-113898/AS.

In addition to these reports, reports on the process of care in the Medicare Competition Demonstrations as well as a final use and cost analysis using individual-level beneficiary data will be complete and made available through NTIS early 1989.

Evaluation of the Medicaid Competition Demonstrations

Project No.:	500-83-0050
Period:	September 1983-March 1989
Funding:	$ 4,215,473
Award:	Contract
Contractor:	Research Triangle Institute P.O. Box 12194 Research Triangle Park, N.C. 27709
Project Offficer:	Spike Duzor Division of Health Systems and Special Studies

Description: Medicaid demonstrations were implemented in six States (California, Florida, Minnesota, Missouri, New Jersey, and New York) to test alternative strategies for the delivery and financing of health care to Medicaid beneficiaries. A common feature in these projects was that States tested prospective/capitated payments and case management to promote a more efficient Medicaid program. In 1983, the Office of Research and Demonstrations initiated a comprehensive evaluation of these Medicaid capitation demonstrations. An evaluation contract was awarded to Research Triangle Institute (RTI) to assess cost, utilization, access, satisfaction, and quality of care issues under the demonstrations.

Status: A summary of interim findings and policy issues is currently available from the National Technical Information Service, accession no. PB88-211453/AS. A final report will be available Spring 1989. The findings are generally supportive of Medicaid capitated health care alternatives. These demonstrations had a positive impact on controlling Medicaid patients' emergency room and inpatient utilization, increasing access, and promoting higher levels of patient satisfaction and overall quality of care. This study, however, was only able to obtain first-year demonstration cost data, which included some level of startup costs. The overall cost-effectiveness findings for this study were inconclusive. Most of the demonstrations spent more money for health care under a capitated health care arrangement than RTI estimated would have been spent in the regular fee-for-service

Medicaid program. The evaluator, however, indicates that after several years of ratesetting experience, States could ultimately design cost-effective capitated health care alternatives.

Evaluation of Medicare Health Maintenance Organization Demonstration Projects

Funding:	Intramural
Project Officer:	Gerald F. Riley Division of Beneficiary Studies

Description: This study evaluates demonstration projects undertaken to encourage health maintenance organizations (HMO's) to participate in the Medicare program under a risk mechanism. Three demonstration HMO's are included in the study: Fallon Community Health Plan, Greater Marshfield Community Health Plan, and Kaiser-Permanente of Portland, Oregon. The study includes 18,085 aged Medicare beneficiaries who had enrolled in the plans as of April 1981. Also included are comparison groups from a random sample of aged Medicare beneficiaries living in the same geographic areas as the enrollees. The evaluation examines issues such as biased selection, patterns of prior and post-enrollment use by HMO enrollees, and comparisons of use and expenditure patterns by HMO and non-HMO beneficiaries.

Status: An article entitled, "Beneficiary selection, use, and charges in two Medicare capitation demonstrations" is scheduled to appear in the Fall 1988 *Health Care Financing Review*. Another paper entitled "Capitation and Medicare: Past, present, and future," is scheduled for publication in the proceedings of a conference entitled, "Lessons from the First 20 Years of Medicare," sponsored by the Leonard Davis Institute for Health Economics in October 1986. A paper entitled, "Biased Selection and Regression to the Mean in Medicare Demonstration HMO's: A Mortality Analysis of Enrollees and Disenrollees," was presented at the 1987 annual meeting of the American Public Health Association.

Quality of Care

Hospital Care

Nonintrusive Outcome Measures: Identification and Validation

Project No.:	17-C-98684/9
Period:	September 1984-December 1988
Funding:	$ 996,109
Award:	Cooperative Agreement
Awardee:	The Rand Corporation 1700 Main Street Santa Monica, Calif. 90406
Project Officer:	Harry L. Savitt Division of Beneficiary Studies

Description: The main objective of this project is to develop nonintrusive measures (administrative data) to determine the impact of selected changes in the health care sector, particularly prospective payment and diagnosis-related group methodology, on the quality of medical care. Another objective is to identify short-stay hospital care that may be less than adequate. In addition, medical conditions that appear to be associated with lower levels of care will be identified. A set of nonintrusive outcome indicators for quality care review is proposed.

Status: The first phase of the study design has been implemented. Specification of data from the Medicare Statistical System has been completed, and analysis has begun. An expert consensus panel has been convened to review the analysis and to recommend medical conditions for further study. In addition, chart review protocols have been developed to validate the administrative record data. Disease-specific, identified medical records have been collected and abstracted. Data entry and analysis is in progress. A final report is expected in early 1989.

Develop Indexes of Hospital Efficiency and Quality

Project No.:	18-C-98841/5-01
Period:	September 1985-December 1987
Funding:	$ 227,097
Award:	Cooperative Agreement
Awardee:	Commission on Professional and Hospital Activities 1968 Green Road P.O. Box 1809 Ann Arbor, Mich. 48106
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: This study is designed to produce quality and efficiency indexes by using existing data bases from the Commission on Professional and Hospital Activities, the American Hospital Association, and the Medicare Provider Analysis and Review File (MEDPAR), maintained by the Health Care Financing Administration. These indexes will provide the basis for monitoring simultaneous changes in efficiency and quality and for measuring efficiency/quality tradeoffs with hospitals.

Status: A final report has been submitted to the Health Care Financing Administration and is currently being reviewed.

Impact of the Prospective Payment System on the Quality of Inpatient Care

Project No.:	15-C-98663/5-01
Period:	September 1985-January 1989
Funding:	$ 275,689
Award:	Cooperative Agreement
Awardee:	Commission on Professional and Hospital Activities 1968 Green Road P.O. Box 1809 Ann Arbor, Mich. 48106
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: This project is congressionally mandated by Public Law 98-21. It will evaluate the effect of the Medicare hospital prospective payment system on the quality of inpatient care received by Medicare patients by examining several indicators of hospital performance. This examination is to be based primarily on data from the Professional Activity Study maintained by the Commission on Professional and Hospital Activity (CPHA), supplemented by data from several other sources maintained by CPHA.

Status: The first and second year's project reports have been completed. A final project report is under preparation and expected in April 1989.

Impact of the Diagnosis-Related Group Based Prospective Payment System on Quality of Care for Hospitalized Medicare Patients

Project No.:	18-C-98853/9-03
Period:	September 1985-September 1989
Funding:	$ 3,710,403
Award:	Cooperative Agreement
Awardee:	The Rand Corporation 1700 Main Street Santa Monica, Calif. 90406
Projet Officer:	Harry L. Savitt Division of Beneficiary Studies

Description: This study will evaluate the impact of the prospective payment system on quality of care. It will assess potential effects of changes in inpatient hospital treatment patterns by examination of medical records and resultant health status outcomes. Quality measurement scores will be constructed for six medical conditions, before and after the introduction of prospective payment, taking into account:

- The nature, timing, and effects of medical procedures rendered.
- Disease severity.
- Comorbid conditions.

The effectiveness of medical care treatment will be evaluated by relating quality scores to mortality, readmission rates, and other outcome variables.

Status: During the first year, study areas and the number of data collectors to be assigned to each area for each of the five States in the study were determined; worksheets for all hospitals eligible for study in the five States were established; six disease categories (hip fracture, myocardial infarction, congestive heart failure, pneumonia, cerebrovascular accident, and depression) and their corresponding *International Classifications of Diseases, 9th Revision, Clinical Modification* codes were identified; six expert physician panels were convened to establish quality of care criteria for the six study diseases; and individualized project summary packages were developed and sent to each of the five participating peer review organizations. During the second year, activities centered around data abstraction, instrument development, data collector recruiting and training, and data collection. During the third year, data collection was begun. A final report is expected Winter 1989.

Analysis of Hospital Aftercare Under Prospective Payment

Project No.:	500-86-0017
Period:	April 1986-September 1988
Funding:	$ 1,436,268
Award:	Contract
Contractor:	System Sciences, Inc. 4330 East-West Highway Bethesda, Md. 20814
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: The purpose of this pilot study is to develop and field test methods for determining the appropriateness of post-discharge aftercare services. Study methods will involve classifying patients at the time of their discharge from the hospital according to their post-discharge service needs and applying professionally developed guidelines to project aftercare needs. Projected need will then be compared with services received based on interview data.

Status: The project methodologies and instrumentation have been completed and field tested. The final report is expected February 1989.

Changes in Post-Hospital Services Use by Medicare Beneficiaries

Project No.:	500-85-0015
Period:	August 1986-June 1988
Funding:	$ 301,500
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Paul W. Eggers Division of Beneficiary Studies

Description: This project is congressionally mandated by the 1983 Amendments (Public Law 98-21) to the Social Security Act. The objective of this study is to determine the extent to which use of Medicare-covered services (post-inpatient discharge) have changed as a result of the impact of the prospective payment system (PPS). This study will test whether or not the shortened lengths of stay under PPS have resulted in increased utilization of Medicare-covered skilled nursing facilities, home health services, and physician services. The analysis will be based on a random sample of hospitalized patients for the years 1980-86 and will be targeted on patients at high risk of having post-hospital subacute care needs. Linked Medicare claims files will be used to track changes in post-hospital use over this time. The unit of analysis will be the hospitalization episode. Medicare service use will be examined for a 6-month period following discharge from the hospital.

Status: Preliminary analyses were completed in June 1987 and incorporated into the 1986 Annual Report to Congress on the *Impact of the Medicare Hospital Prospective Payment System*. Draft reports were received in August 1988 and will be included in the 1987 Annual Report to Congress.

Trends in Patterns of Post-Hospital Service Use and Their Impact on Outcomes

Project No.:	17-C-99009/4-0 1
Period:	June 1987-May 1990
Funding:	$ 293,922
Award:	Cooperative Agreement
Awardee:	Duke University Demographic Studies 2117 Campus Drive Durham, N.C. 27706
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: This project will examine the pattern of care delivered after hospitalization for different types of hospitalized patients, as distinguished by diagnosis, age, sex, and other data elements contained on the Medicare Part A bill. Post-hospital use patterns will be examined in terms of types and duration of Medicare services received and the proportion of patients receiving care. Similar patterns will be examined for non-hospitalized Medicare beneficiaries.

Status: The project has focused on expanding and cleaning data files used in previous analyses.

Prospective Payment System Impact on Mortality Rates: Adjustments for Case-Mix Severity

Project No.:	500-85-0015
Period:	August 1986-March 1987
Funding:	$ 149,582
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Paul W. Eggers Division of Beneficiary Studies

Description: This project is congressionally mandated by the 1983 Amendments (Public Law 98-21) to the Social Security Act. The objective of this study is to develop a case-mix adjustment for use in post-admission mortality studies conducted as part of the overall evaluation of the impact of the prospective payment system on quality of care. Most measures of case mix are based on resource consumption. That is, diagnostic classifications are defined to be statistically homogeneous on resource consumption, and the relative costliness of each class of diagnoses is used as a weight in deriving the overall index value. Such case-mix indexes are of little value in studies of mortality rates. This study developed a case-mix index that predicts the overall probability of death for a given mix of patients. This effort developed a mortality-based case-mix measure by differentiating between levels of disease severity within diagnostic categories. The study used a 20-percent sample of 1984 Medicare hospitalization with indicators of 30-day post-admission mortality. Using the disease staging methodology, variations in severity within diagnosis-related groups were compared with mortality rates to determine the extent to which severity accounts for variations in mortality.

Status: First-year findings show that increases in post-admission mortality rates between 1984 and 1985 were accounted for by increases in severity of illness. These findings were incorporated into the 1986 Annual Report to Congress on the *Impact of the Medicare Hospital Prospective Payment System*. A publication entitled, "Prospective Payment System Impact on Mortality Rates: Adjustments for Case-Mix Severity," is available from the National Technical Information Service, accession number PB88-131560. The analysis has been extended to include 1986 data. Results will be included in the 1987 Annual Report to Congress on prospective payment.

Development of Methodologies for Technical Assessment and Quality Assurance Based on the Medicare Claims Data System

Project No.:	17-C-99296/1-01
Period:	September 1988-August 1991
Funding:	$ 125,000
Award:	Cooperative Agreement
Awardee:	Dartmouth College Dartmouth Medical School P.O. Box 7 Hanover, N.H. 03756
Project Officer:	Marshall McBean Division of Beneficiary Studies

Description: Medicare claims data will be used to identify patients who underwent coronary angiography in one of three New England hospitals from 1984 to 1986. Claims data on those Medicare beneficiaries 65 years of age or over who are diagnosed as having unstable angina will be supplemented with information abstracted from the medical records before and after surgery. A data collection instrument will then be created and tested to collect information from their medical records. Patient data and information derived from the literature will be used to describe patient differences among the three hospitals. It will be presented to a cardiovascular-outcomes study group to develop hypotheses that can be tested, assess the reliability and validity of the available data, and refine the criteria for entry into the study. The project will allow the Health Care Financing Administration to pursue research methodologies that should be used in studies relating to effectiveness of medical and surgical interventions in the Medicare population and would help validate the utility of Medicare claims data in studies of this type.

Status: This project is in the early implementation phase.

Evaluating Outcomes of Hospital Care Using Claims Data

Project No.:	1R-18-HS0545-01
Period:	July 1987-June 1989
Funding:	$ 500,000 from Health Care Financing Administration; $ 900,000 from National Center for Health Services Research

Award:	Grant
Grantee:	John E. Wennberg, M.D. Dartmouth Medical School Hanover, N.H. 03756
Project Officer:	Marshall McBean Division of Beneficiary Studies

Description: This is a study of the use of claims data for evaluation of outcomes associated with surgical procedures and medical admissions. The project will extend previous research both in breadth (to a wider range of procedures and admissions) and in depth (to validate and interpret previous findings by comparison of claims data with medical records). Using data from Medicare and from the Manitoba Health Commission, the project will proceed in two phases, the first to test the hypotheses about the relationship between therapy and outcome for a subset of conditions and procedures, and the second to validate outcomes for alternative approaches to prostatectomy.

Status: The project has accumulated the Health Care Financing Administration enrollment and utilization data for the years 1984–87 for the six New England States plus four others. Software has been developed to link records pertaining to the same individuals in order to create sequential records. The initial file created was for patients who underwent prostatectomy. Files have subsequently been created for abdominal vascular surgery and hip fracture, and analysis of the outcomes of these procedures has begun. Five other procedures (heart valve replacement, coronary artery bypass graft, angioplasty, peripheral vascular surgery, and endarterectomy) and two medical admissions (stroke and chronic obstructive pulmonary disease) will also be studied. Analysis of the long-term consequences of prostatectomy using data from Manitoba in order to adjust for patient severity at the time of surgery is continuing. Measures of severity obtained from the Manitoba Cancer Registry and a severity score provided by anesthesiologists, as well as measures of comorbidity from the claims records, are being incorporated.

Patient-Classification Systems: An Evaluation of the State of the Art

Project No.:	17-C-99133/F-01
Period:	June 1987–April 1989
Funding:	$ 1,602,564
Award:	Cooperative Agreement
Awardee:	Queen's University Kingston, Ontario Canada K7L 3N6
Project Officer:	Jeanette M. Smith Division of Reimbursement and Economic Studies

Description: This project is comparing the predictive power, for costs and mortality, of several patient classification systems: computerized severity index (CSI), acute physiology and chronic health evaluation (APACHE) II, medical illness severity grouping system (MEDISGRPS), patient management categories (PMC's), coded staging, and clinical staging. The study will abstract data from a nationally representative sample of approximately 15,000 medical records, and the classification systems will be compared individually and in various combinations.

Status: The project is using 7,050 Medicare cases collected for the Diagnosis-Related Group Validation Study of the Health and Human Services' Office of the Inspector General (OIG) in a pilot study. It has developed microcomputer software to allow direct entry of medical record data. Abstraction of data from the OIG records is nearing completion. The project then undertakes file construction, data analysis, validity studies, and reliability studies. It is simultaneously developing a larger, more representative sample from 1985 Medicare Statistical Files. Five peer review organizations will collect data on the sample using the project's microcomputer software.

Strategies for Assessing and Assuring Quality of Care in the Medicare Program

Project No.:	17-C-99170/3-01
Period:	September 1987–December 1989
Funding:	$ 1,757,000
Award:	Cooperative Agreement
Awardee:	National Academy of Sciences Institute of Medicine 2101 Constitution Avenue, NW. Washington, D.C. 20418
Project Officer:	Harry L. Savitt Division of Beneficiary Studies

Description: The Institute of Medicine is conducting a 2-year study to design a strategy for assessing and insuring the quality of care in the Medicare program in accordance with Section 9313 of the Omnibus Budget Reconciliation Act of 1986 (Public Law 99–509). The main purpose of the study is to develop, within a committee of experts, a recommended strategy for quality review and assurance for Medicare beneficiaries.

Status: During the first year, four committee meetings and one technical advisory panel meeting have been held. Six background papers have been commissioned. Other staff and commissioned papers are being considered. Eight focus groups of elderly persons were held in four sites. Similar focus groups with physicians are being planned. Two public hearings were planned, one in San Francisco and the other in Washington. Ten site visits to health care organizations conducting quality review are planned. A congressional briefing for key staff members was held in July. Other presentations about the study were made to the American Medical Peer Review Association, American Medical Association, the Joint Commission on Accreditation of Health Care Organizations, the Office of the Department of Health and Human Services' Inspector General, and the Prospective Payment Assessment Commission. A final Report to Congress is expected January 1990.

An Automated Data-Driven Case-Mix Adjustment System for Studies of Quality of Care

Project No.:	18-C-99069/9-01
Period:	June 1987–June 1990
Funding:	$ 526,948
Award:	Cooperative Agreement
Awardee:	University of California at San Francisco 3333 California Street, Suite 11 San Francisco, Calif. 94143
Project Officer:	James D. Lubitz Division of Beneficiary Studies

Description: The project will investigate whether predictors of patient outcome for use as control variables in studies of quality of care can be developed from readily available laboratory test information. In addition, the project will develop predictors of the outcomes of hospital care using laboratory test results that are available in computerized form at many hospitals. The outcome variable will be mortality after hospitalization. After the models are developed, they will be compared with models using variables obtainable only by labor-intensive review of medical records. Data for the project will come from the University of California at San Francisco and Stanford Hospitals covering the period from 1985 to 1987.

Status: Laboratory and hospital discharge data for part of this study period have been obtained and processed. Preliminary analyses have confirmed the investigators' view that the main analytic tool should be classification and regression trees.

Using Case-Mix Systems to Measure Quality of Care

Project No.:	99-C-98526/1-05
Period:	August 1988–July 1989
Funding:	$ 125,297
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Jeanette M. Smith Division of Beneficiary Studies

Description: This project involves three separate activities:

- Using the hospital medical illness severity grouping system (MEDISGRPS) data base to examine the ability of MEDISGRPS to predict and explain the 30-day and 60-day post-admission mortality.
- Examining the relationship between severity scores produced through the computerized severity index (CSI), costs of hospital admissions, and in-hospital deaths.
- Planning and hosting several symposia to discuss issues relating to the measurement of quality of care.

Status: The first activity, assessment of the CSI, is in the early developmental stage.

Outcome Measures for Assessment of Hospital Care

Project No.:	99-C-99169/5-01
Period:	September 1988–October 1989
Funding:	$ 70,134
Award:	Cooperative Agreement
Awardee:	University of Minnesota Research Center (See page 67)
Task Leader:	Paul W. Eggers Division of Beneficiary Studies

Description: The purpose of this project is to explore the usefulness of outcome measures other than that of mortality in assessing the effectiveness of hospital care. An array of potentially critical outcomes will be identified through consultations with specialists whose professions cover a full range of medical specialties. A priority list of outcomes will be created for use in each major speciality area (e.g., general medicine, surgery, oncology, ophthalmology) along with a plan for any further developmental work that may be determined necessary.

Status: The project is in the early developmental stage.

Prospective Payment Beneficiary Impact Study

Funding:	Intramural
Project Directors:	Paul W. Eggers and James D. Lubitz Division of Beneficiary Studies

Description: The studies in this area are designed to assess the potential impact of the prospective payment system on access to care and quality of care received by Medicare beneficiaries. Access to care is assessed by examining changes in admission rates in short-stay inpatient hospital facilities, lengths of stay, and total days of care received by Medicare beneficiaries. Quality of care is assessed primarily through examination of outcome criteria such as mortality rates and rehospitalization rates. Mortality rates used in the analyses include total population mortality, post-admission mortality rates (per 1,000 admissions), and post-admission mortality rates (per 1,000 persons). Rehospitalization rates are based on rehospitalizations within fixed intervals of time following discharge, such as 30 days or 60 days. Both the access-to-care and the quality-of-care studies examine rates by classes of individuals such as age, sex, and race. In addition, the analyses examine the aged, disabled, and end stage renal disease populations separately.

Status: Baseline data analyses have been performed and are included in the 1984 Annual Report to Congress on the *Impact of the Medicare Hospital Prospective Payment System*, mandated by Public Law 98-21. First and second year implementation data (fiscal years 1984 and 1985) have been analyzed and are included in the 1985 and 1986 Annual Reports to Congress. Further analyses will be included in subsequent Reports to Congress.

The Working Aged

Funding:	Intramural
Project Director:	Alma B. McMillan Division of Beneficiary Studies

Description: Recent legislative changes made Medicare the secondary payer for the working aged and their spouses who work for businesses that have 20 or more employees. There is no information on the precise number of working aged or their Medicare use, but the Bureau of Program Operations (BPO), Health Care Financing Administration, estimates that there are about one million working aged for whom Medicare is the secondary payer. This study will estimate the number of working aged and their use of Medicare services. Good data on this group would improve calculations of program utilization rates, such as hospital discharge rates, and could also be used to improve calculations for the adjusted average per capita cost payments for health maintenance organizations.

Status: BPO has established a regional data exchange system on persons for whom Medicare is the secondary payer. This data system will be the basis for identifying the working aged and is expected to be available by mid-November 1988. Once identified, the working aged could then be linked to their Medicare utilization data to permit analytical studies for this group.

Long-Term Care

Improving New York State's Nursing Home Quality Assurance Program

Project No.:	11-P-97590/2-05
Period:	September 1980-December 1988
Award:	Grant
Grantee:	State of New York Department of Social Services Tower Building Empire State Plaza Albany, N.Y. 12237
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: This project tests the simplification of federally mandated periodic medical review/ independent professional review processes in nursing homes and combines the process with the annual facility survey. Surveyors use 11 sentinel health events, such as accidents, decubitus ulcers, and medication regimen to determine if nursing home patients are receiving quality care. Facilities found to have fewer than the average problems in these areas receive a less-than-full facility survey. This combined medical review and survey method reduces surveyors' time and allows State personnel to focus on facilities and patients with major problems.

Status: The project is currently in its fifth and final year. The new inspection of care processes are fully operational. The State indicates that the new system provides documentation to allow them to take positive corrective actions against nursing homes found to be in noncompliance. Of the 80 adverse actions taken by the State in 1985 and 1986, only 7 resulted in administrative hearings. During this period, the State assessed $559,000 in penalties and was successful in collecting $334,000. In addition, there were 15 referrals to the Health Care Financing Administration Regional Office for intermediate sanctions. The waivers have been continued while the State develops a new computer-assisted quality assurance process. The independent evaluator submitted a final report entitled, "Evaluation of the Three State Demonstrations in Nursing Home Quality Assurance Processes," in Fall 1985. The report is available through the National Technical Information Service, accession number PB86-215985/AS. The substantive findings regarding this report were:

- The average severity of deficiencies was higher under the new method than under the old method.
- Most of the deficiencies found by the evaluator's validation team were also found by the State surveyors. However, with respect to correction, the State surveyors reported almost all cited deficiencies corrected at followup, while the validation team found two-thirds of the cited violations were corrected.
- There was a significant relationship between the number of deficiencies detected by State surveyors and an independent, nondeficiency-based quality-of-care measure, the quality assessment index (QAI). The relationship between the severity of deficiencies detected by State surveyors and QAI score was somewhat greater than that for quantity of deficiencies.
- The results suggest that there was a decline in total surveyor time spent on nursing home quality assurance.

The State has conducted an evaluation of the last 2 years of the project. The final report is expected Spring 1989.

New York State Integrated Quality Assurance System for Residential Health Care Facilities: The Next Step After Case-Mix Reimbursement

Project No.:	11-C-98925/2-01
Period:	August 1986-July 1989
Funding:	$ 597,695
Award:	Cooperative Agreement
Awardee:	New York State Department of Social Services 40 North Pearl Street Albany, N.Y. 12243
Project Officer:	Marvin A. Feuerberg Division of Long-Term Care Experimentation

Description: The objectives of the New York State Quality Assurance System (NYQAS) are to link data from the case-mix reimbursement system for use in the quality assurance system and to integrate the quality assurance processes of survey/certification, inspection of care, and utilization review. The State recently

implemented a case-mix payment system for residential health care facilities for which all patients are assessed at least biannually. The resulting data on patient characteristics are audited and entered on a client-specific data base that can be utilized to target quality assurance activities toward facilities that:

- Have staffing patterns that seem inappropriate to needs of patients.
- Have excessive numbers of patients with clinical outcomes that indicate possible deficiencies in the quality of care.
- Have unexpected negative outcomes from one review to the next.

External outcome standards, survey and certification, inspection of care, and utilization review activities will be integrated into a single, patient-centered process. The use of the case-mix data base will serve to focus reviewer energies on problem facilities. The ability to routinely track significant or potentially significant deteriorations in patient care will trigger off-cycle surveys. Facilities identified as having few or no problems will be targeted for abbreviated surveys.

Status: During the first and second year of the project, the State completed the NYQAS design. The State also has designed a training program for State surveyors on the use of the new protocols and procedures and has contracted with Hunter College to provide the surveyor training in various parts of the State. The training began October 1988 and NYQAS was implemented in November 1988. Administrative waivers will permit sampling of resident review (as opposed to 100 percent review), a survey cycle which averages 12 months (as opposed to 12 months for all homes), and the alignment of utilization review with case-mix assessment intervals.

Quality Assurance Sampling: A Statistical Quality-Control Approach to Inspection of Care

Project No.:	11-C-98260/1-03
Period:	February 1983-May 1986
Funding:	$ 15,600
Award:	Cooperative Agreement
Awardee:	Massachusetts Department of Public Welfare 600 Washington Street Boston, Mass. 02111
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: The main objective of the project was to verify that patients in nursing homes were receiving appropriate care at the appropriate level, without reviewing every patient. Current law requires a review of all Medicaid patients in a facility to verify the appropriateness of care and placement. This project used statistical quality-control techniques to achieve these goals so that surveyor time could be reallocated to other quality assurance activities.

Status: Criteria were developed for determining which facilities were appropriate for the sampling process. The procedures for sampling patients, including safeguards to control statistical biases, were refined. Pretests of the process and orientation sessions for surveyors were conducted in July and August 1983. The project became operational on August 29, 1983. During the first quarter, more than 50 percent of the facilities received a 100-percent review based on the walk-through findings. During the last quarter of the first year and the first two quarters of the second year, only 25 percent of facilities have received a full review. During the second and the third years, the State systematized the process and it functioned normally. In the third year, the State developed the evaluation plan and a revised process that would be used when the waivers were withdrawn. The State contracted with the Social Gerontology Department of the Hebrew Rehabilitation Center for the Aged to conduct the evaluation. The final report of the evaluation has been received. The State returned to full review of Medicaid residents in May 1986 using the revised process approved by the Boston Regional Office. The final report has been received and is being reviewed.

A Longitudinal Study of Case-Mix Outcomes and Resource Use in Nursing Homes

Project No.:	18-P-98717/1-03
Period:	September 1985-November 1988
Funding:	$ 722,135
Award:	Cooperative Agreement
Awardee:	Brown University Box G Providence, R.I. 02912
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: This study of natural histories of patient outcomes was designed to analyze the variation in outcomes for nursing home residents and the relationship between case-mix adjusters and these outcomes. Using several large administrative data sets, the project focused on quality-based outcome measures such as changes in physical function, discharge status, and changes in clinical conditions and the receipt of services. Data on residents from the National Health Corporation, New York State, and Texas facilities were used in these analyses.

Status: The study consisted of three major areas of analyses. The first set of analyses described probabilities of functional change and discharge locations for a cohort of residents newly admitted to the nursing home. Analyses of the changing risk of discharge dead, to home, and to the hospital over the first year of stay show that early in the stay, a positive outcome is strongly related to the functional abilities of the residents. The longer residents remain in the facility, the less likely they are to leave. Three different data sets were then used to describe the relationship between case-mix adjusters and quality indicators. Outcomes examined include: several measures of physical

functioning, decubitus ulcers, urinary tract infections, contractures, and the use of restraints. Some common patterns were identified. Changes in functional abilities were more consistently associated with age than with diagnosis. The final phase of analysis was a validation of three multivariate models that predict 6-month outcomes. The models predict functional improvement, functional decline, and death for a cross-section of nursing home residents. Each model was initially developed with data from Rhode Island, as part of a study funded by the National Center for Health Services Research. Using data from New York State and National Health Corporation nursing home residents, these three models were re-estimated. Overall, the majority of terms in the three models were related to the outcomes as found in the Rhode Island models. There was some variation in the magnitude and significance of the relationships. However, robust associations were found for parameters that were most consistently defined and those that were less dependent on variations in practice patterns. Functional status, as measured by eating and transfer activities of daily living, was the patient characteristic most consistently related to prevalence and incidence of decubitus ulcers, urinary tract infections, contractures, and restraint use. A draft of the final report has been received and is currently being reviewed.

Impact of the Prospective Payment System on the Quality of Long-Term Care in Nursing Homes and Home Health Agencies

Project No.:	17-C-98971/8-01
Period:	August 1986–August 1989
Funding:	$ 608,553
Award:	Cooperative Agreement
Awardee:	University of Colorado 1355 South Colorado Boulevard, Suite 706 Denver, Colo. 80222
Project Officer:	Marni J. Hall Division of Reimbursement and Economic Studies

Description: This study examines patient-level process indicators of quality of care provided to skilled nursing facility (SNF) and home health patients before and after implementation of the Medicare inpatient hospital prospective payment system (PPS). It also assesses pre- and post-PPS differences in patient care practices and outcomes as reported by physicians and nurses, and the number and types of acute care beds recently converted to SNF beds (transition beds). Because of a recent supplement, this project will also conduct research mandated by the Medicare Catastrophic Coverage Act of 1988 relating to the quality of long-term care services (in community-based and custodial settings), and effects of the provision of long-term care services on reduction of expenditures for acute health care services.

Status: Initial findings from this project were incorporated into a July 1987 report entitled, "Case Mix and Quality of Care in Nursing Homes and Home Health Agencies." Analyses of the pre- and post-PPS time periods indicated that the level of quality of care provided prior to the implementation of PPS has generally been maintained. More detailed analyses have been undertaken relating to this issue, along with analyses of the transition bed data. A report on these two topics is expected early in 1989.

Study of Long-Term Care Quality and Nursing Homes

Project No.:	18-C-98417/8-03
Period:	September 1983–September 1986
Funding:	$ 808,176
Award:	Cooperative Agreement
Awardee:	University of Colorado Health Sciences Center 4200 East 9th Avenue, C-421 Denver, Colo. 80262
Project Officer:	Dennis M. Nugent Division of Long-Term Care Experimentation

Description: The purpose of this evaluation of the Robert Wood Johnson Foundation's (RWJF) Teaching Nursing Home Program (TNHP) was to assess the impact of nursing school/nursing home affiliations on patient outcomes and costs of patient care. Eleven university-based schools of nursing were funded to establish clinical affiliations with one or two nursing homes. Objectives of the study included assessing the extent to which the TNHP approach reduces hospitalizations and emergency room use, examining whether the length of nursing home stays is reduced and discharges into independent living environments are increased, and determining the program's effect on the health status and functioning of the patient. In addition to utilization and patient impacts, a cost-benefit analysis was conducted. The evaluation of this program is sponsored jointly by the Health Care Financing Administration and RWJF. (RWJF is funding the evaluation from October 1986 to December 1988.) A supplement to the initial grant was funded in June 1986 to examine quality and process care in teaching nursing homes compared with that in comparison nursing homes. This comparison of care is being studied in seven problem areas: urinary incontinence and urinary catheter, pressure sores, terminal illness, confusion, falls, diabetes, and use of sedatives.

Status: Information about the individual teaching nursing home facilities was summarized in a programmatic report published in 1985. A final report discussing outcome results, process quality results, and policy implications will be available in early 1989.

Development of Outcome-Based Quality Measures for Home Health Services

Project No.:	500-88-0054
Period:	September 1988–December 1992
Funding:	$ 1,965,389
Award:	Contract

Awardee:	Center for Health Policy Research 1355 S. Colorado Boulevard Denver, Colo. 80222
Project Officer:	Tony F. Hausner Division of Long-Term Care Experimentation

Description: The purpose of this contract is to develop and test outcome-based measures or indicators of quality for Medicare home health services. The measures are to be reliable and valid for use in monitoring and comparing quality of home health care across agencies, recognizing possible confounding factors such as case mix. Colorado has developed a set of quality indicator groups that they hope to test in this study. The contractor will consider a broad range of possible outcome measures including health and functional status measures. They will test outcome measures that are linked to specific diagnostic conditions and/or services and broad-based measures that are not so linked. They will also test measures that are more precise in the information provided and others that are more practical and less costly to administer. The key criteria for the selection of measures include feasibility, reliability, validity, difficulty in "gaming" the measures, impact on quality access, and cost/burden of data collection to the Health Care Financing Administration and home health agencies.

Status: The contract was awarded in September 1988. The specific quality measures to be tested will be identified in early 1989.

Development, Pilot Testing, and Refinement of Valid Outcome Measures for the Home Care Setting

Project No.:	18-C-98868/0-02
Period:	September 1985-August 1988
Funding:	$ 201,143
Award:	Cooperative Agreement
Awardee:	Home Care Association of Washington 406 Main Street, Suite 116 Edmonds, Wash. 98020
Project Officer:	Margaret Coopey Division of Long-Term Care Experimentation

Description: Most efforts to evaluate home health care quality have focused on the home health agency (HHA) organizational structure or the process of care delivery but have neglected patient outcome measures as quality indicators. This project, sponsored by the Home Care Association of Washington (HCAW) and developed in conjunction with their Quality Assurance Committee, is designed to develop, pilot-test, and refine seven patient-centered outcome measurement scales to monitor and assess the quality of care delivered by HHA personnel. The scales are designed to monitor the quality of care within agencies rather than serve as measures to compare quality across HHA's. The project conducted pilot tests of each outcome scale in HCAW member agencies on 121-196 randomly selected home care patients.

Status: A draft final report has been submitted and is currently being reviewed.

The Use of Medicaid Reimbursement Data in the Nursing Home Quality Assurance Process

Project No.:	18-C-99256/5-01
Period:	June 1988-June 1989
Funding:	$ 132,930
Award:	Cooperative Agreement
Awardee:	Center for Health Systems Research and Analysis University of Wisconsin-Madison Room 300 Infirmary, 1300 University Avenue Madison, Wis. 53706
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: The purpose of this project is to assess the feasibility of using Medicaid reimbursement data to target facilities and residents in the nursing home quality assurance survey process. Medicaid reimbursement data appear to hold considerable promise in helping target facilities for more intensive review, identifying specific areas of deficient care, and identifying individual residents for more detailed review. Information on medication use, sentinel health events, and other indicators can be provided to surveyors in preparation for the field survey. The information can also be used to determine whether problems have recurred after the survey and follow-up visits. The objectives of the project are:

- To convert reimbursement data into specific quality of care indicators (QCI's), particularly with respect to drug-related measures and medical outcomes.
- To identify the conditions, standards, and elements in the Federal regulations for which the use of QCI's has the greatest potential benefit.
- To develop and demonstrate in one State (Wisconsin) the procedures for providing QCI's to survey staffs.
- To assess the potential for implementing the system in other States.
- To determine the implications of the proposed Health Care Financing Administration nursing home regulations and 1987 Omnibus Budget Reconciliation Act provisions for the use of reimbursement data in the quality assurance process.
- To design an expanded demonstration of the use of QCI's in the survey process.

Status: Fifteen preliminary QCI's have been developed and are currently being reviewed by the project staff and the advisory panel. The QCI's have been linked to specific conditions, standards, and elements within the existing Federal regulations, and proposed new regulations are being reviewed to determine their relationship with the QCI's. Deficiencies and QCI's in Wisconsin for the period August 1987 to 1988 are being analyzed to determine the baseline relationship between the two measures. Preliminary discussions have been held with

survey staff to develop the system for conveying QCI information to the surveyors in a systematic way. Finally, a survey of State Medicaid reimbursement and quality assurance officials is being designed to identify which States may hold the greatest potential for the use of Medicaid data in the survey process.

Study of Home Health Care Quality and Cost Under Capitated and Fee-For-Service Payment Systems

Project No.:	17-C-99051/8-01
Period:	June 1987-December 1991
Funding:	$ 1,683,773
Award:	Cooperative Agreement
Awardee:	Center for Health Policy Research 1355 South Colorado Boulevard Denver, Colo. 80222
Project Officer:	Marni J. Hall Division of Reimbursement and Economic Studies

Description: This 54-month project will compare the quality and cost of home health care provided under capitated and noncapitated payment systems for two groups of Medicare beneficiaries: clients admitted to home health care following a hospitalization, and those who have not been in a hospital for at least 30 days prior to the initiation of home care. Process and outcome quality measures are being developed and will be used with patient-level resource use measures to assess cost effectiveness of care in the two settings.

Status: During the planning phase of this project, the design was finalized for this study. Instrument development was completed. A series of quality indicator groups were developed containing patients with similar expected outcomes. Pilot testing also took place during the first 15-month project period. Five study papers have been developed to date entitled: "Study Design and Planning Phase Progress Report," "Quality Assurance in Home Health Care," "Quality Measurement and Patient Classification for Home Health Care," "Medicare Home Health Care Reimbursement Issues," and "Health Maintenance Organizations and Home Health Care Under Medicare." In the coming year, primary and secondary data gathering will begin.

Other Studies

Medicaid Quality of Care Study

Project No.:	500-88-0044
Period:	June 1988-December 1989
Funding:	$ 842,371
Award:	Contract
Contractor:	SysteMetrics Inc/McGraw Hill 104 West Anapamu Street Santa Barbara, Calif. 93101
Project Officer:	Thomas W. Reilly Division of Program Studies

Description: Section 9432(c) of the Omnibus Reconciliation Act of 1986 (Public Law 99-509) requires that the Department of Health and Human Services report to Congress on a study that examines the appropriateness, necessity, and effectiveness of selected medical treatments and surgical procedures for Medicaid patients. The study must analyze the extent of variation that exists in the rate of performance of these treatments and procedures on Medicaid beneficiaries for small areas within States and among States. The study must also identify underutilized, medically necessary treatments and procedures for which failure to furnish could have an adverse effect on health status, and the rate of use by Medicaid beneficiaries is significantly less than the rate for comparable, age-adjusted populations. The Medicare Catastrophic Coverage Act of 1988 subsequently modified the mandate so that the study is being conducted in two phases. The first phase will include an analysis of geographic variation, and an interim report is due to Congress on January 1, 1990. The second phase will deal with the remaining issues of appropriateness, necessity, and effectiveness. The final report is due to Congress on January 1, 1992.

Status: The contract was awarded on June 30, 1988. Activities are under way to obtain necessary data and input from technical advisors to begin the analyses for the first phase.

Option Paper on Collection of Health Status Information on Consecutive Cohorts of Medicare Beneficiaries

Project No.:	99-C-99168/3-01
Period:	September 1988-March 1989
Funding:	$ 67,470
Award:	Cooperative Agreement
Awardee:	Project Hope Research Center (See page 67)
Task Leader:	Marshall McBean Division of Beneficiary Studies

Description: The purpose of this project is to explore the feasibility of collecting data on the health status of beneficiaries as they become entitled to Medicare at 65 years of age. Similarly, researchers from this project will also study the feasibility of collecting data on changes in the health status of beneficiaries over time. Finally, the project will assess the feasibility of undertaking a demonstration to evaluate the impact of health risk assessment on beneficiary health and Medicare use.

Status: The project is in the early developmental stage.

Development of Ambulatory Surgery Quality of Care Measures and Monitoring Strategy

Project No.:	99-C-98526/1-05
Period:	August 1988-July 1989
Funding:	$ 40,000
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)

Task Leader: Kathleen M. Farrell
Division of Hospital Experimentation

Description: This project will produce a conceptual report addressing methods that could be used to develop approaches for measuring the quality of ambulatory surgery. This research will provide the Health Care Financing Administration with decision-making information concerning options, strategies, and approaches in developing ambulatory surgery quality of care measures.

Status: The project has completed literature review and is presently assessing the data systems that may be able to support a quality of care monitoring program.

Physician Payment

Physician Utilization, Intensity, and Coding Issues

Volume and Intensity of Physician Services

Project No.: 99-C-99169/5-01
Period: April 1988-December 1988
Funding: $ 106,676
Award: Cooperative Agreement
Awardee: University of Minnesota Research Center
(See page 67)
Task Leader: Sherry A. Terrell
Division of Reimbursement and Economic Studies

Description: Concern about the volume and intensity of services provided by physicians has been stimulated primarily by the growth in spending on Medicare's Part B. The objectives of this study are to:

- Describe and analyze methods affecting the volume and intensity of physician services.
- Describe existing controls used by both public and private carriers.
- Determine carrier medical review effectiveness.
- Consider the impact of a resource-based relative value scale (RBRVS) on the provision of physician services.

Status: Activities that are under way include:

- Identifying the methods for controlling the volume of physician services.
- Analyzing data from a private insurance carrier survey relating to existing carrier utilization controls.
- Conducting a survey of Medicare carriers and subsequently analyzing the effectiveness of methods currently used to ensure that Medicare payments are made only for medically necessary physicians' services.
- Assessing the possible effects of the RBRVS under various assumptions of physician behavior and design features.

A draft final report has been received and is being reviewed.

Effectiveness of Medicare Carrier Volume and Intensity Controls

Project No.: 99-C-99169/5-01
Period: August 1988-January 1989
Funding: $ 44,919 (Bureau of Program Operations funded project)
Award: Cooperative Agreement
Awardee: University of Minnesota Research Center
(See page 67)
Task Leader: Sherry A. Terrell
Division of Reimbursement and Economic Studies

Description: This project is designed to study the effectiveness of pre- and post-payment review activities that are conducted by the Medicare Part B carriers. Mandated under Public Law 100-203, researchers will analyze the effectiveness of methods currently used by these carriers in ensuring that payments are made only for medically necessary services.

Status: The project is in the early developmental stage. A questionnaire has been developed and distributed to Medicare Part B carriers for the purpose of ascertaining the effectiveness of the various methods that carriers employ to ensure that only medically necessary services are being reimbursed.

Specialty Differentials Across Localities

Project No.: 99-C-98489/9-05
Period: May 1988-July 1989
Funding: $ 93,480
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Benson L. Dutton
Division of Reimbursement and Economic Studies

Description: This study has two objectives. The first objective is determining the presence and size of physician payment differentials between specialists and non-specialists across localities for a given set of procedures. This aspect will also focus on the criteria carriers use in defining specialists. The second objective involves an analysis of the effect of physician payment rate differentials across localities on the volume of services provided by physicians.

Status: The Center's researchers are analyzing the data collected and contacting the carriers for purposes of determining carrier practices in defining physician specialists. Similarly, data from the Part B Medicare annual data provider, prevailing charge, and procedure files are also being reviewed. A final report is expected July 1989.

Multiple Hospital Visits

Project No.: 99-C-98489/9-05
Period: August 1988-June 1989
Funding: $ 61,440

Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Benson L. Dutton
	Division of Reimbursement and Economic Studies

Description: This study will examine:

- The relationship of the number and intensity of physicians' hospital visits to the characteristics of the hospital stay.
- How the number and intensity of physicians' hospital visits relate to the characteristics of the physician (e.g., specialty, regional practice patterns, participation and assignment status, and attending status).
- Trends over time in intensity and frequency of hospital visits by carrier and within specialities.

Status: The study is in the early developmental stage.

Medicare Payments for Anesthesia Services

Project No.:	99-C-98526/1-05
Period:	May 1988-March 1989
Funding:	$ 54,116
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Terrence L. Kay
	Division of Reimbursement and Economic Studies

Description: This study will provide basic descriptive information on Medicare charges for anesthesia services, disaggregated by complexity of the procedure, physician specialty, and geographic area. Researchers from Brandeis University/Center for Health Services Research will analyze the frequency with which modifiers are used and how these modifiers can affect the payment level. The project will also focus on the extent to which anesthesiologists submit claims for non-operating room anesthesia services. Similarly, charges for inpatient versus outpatient anesthesia will be compared, and an examination of the relationship between surgery and anesthesia charges will be conducted.

Status: The final report is expected March 1989.

Assistants at Surgery

Project No.:	99-C-98489/9-05
Period:	May 1988-May 1989
Funding:	$ 54,193
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Benson L. Dutton
	Division of Reimbursement and Economic Studies

Description: In fiscal year 1989, Medicare payments for assistants at surgery will be about $350 million. At present, the Health Care Financing Administration has placed limits on paying for assistants at surgery only in cases where teaching hospitals and cataract surgery are involved. Under this project, Rand is studying the use of assistants at surgery from data gathered for 1984, 1985, and 1986. For a number of key procedures, Rand will analyze how much variation in the use of assistants at surgery is explained by patient, hospital, and surgeon characteristics, and by region.

Status: Most of Rand's efforts have centered around data processing activities and in identifying the key procedures to be studied. A draft report is expected March 1989.

Physician Pricing Issues

Physicians' Practice Costs and Income Survey Data Base Management

Project No.:	500-87-0005
Period:	January 1987-December 1988
Funding:	$ 397,575
Award:	Contract
Contractor:	Jil Systems and Services, Inc. 1225 Jefferson Davis Hwy., Suite 1209 Arlington, Va. 22202
Project Officer:	Deborah K. Williams
	Division of Reimbursement and Economic Studies

Description: The Physicians' Practice Costs and Income Survey (PPCIS) was a major national survey of approximately 4,700 physicians that was completed in 1985. The basic purpose of this contract is threefold: to manage the PPCIS data base so that it is available to a wider audience than the Health Care Financing Administration (HCFA); to update and create specific analyses for HCFA as the requirements arise; and to develop a data base for use on personal computers.

Status: Analysis of the geographic cost of physician practice has been completed. The report entitled, "On Establishing a Geographic Medicare Economic Index: Some Illustrations," is available from the National Technical Information Service (NTIS), accession number PB89-103857/AS. A personal computer data base for the 1983-84 PPCIS was developed and is also available from NTIS, accession number PB88-222674/AS.

1988 Survey of Physicians' Practice Costs and Incomes

Project No.:	500-88-0045
Period:	June 1988-June 1990
Funding:	$ 1.8 million
Award:	Contract
Contractor:	National Opinion Research Center (NORC) 1155 East 60th Chicago, Ill. 60637
Project Officer:	Deborah K. Williams
	Division of Reimbursement and Economic Studies

Description: The purpose of this contract is to interview 6,000 U.S. physicians on the cost of practice, productivity, malpractice insurance, volume intensity of certain procedures, and out-of-pocket costs to beneficiaries. The survey results for the 9 census divisions will focus on 16 medical specialties divided into 3 types of areas—large urban, small urban, and rural.

Status: A final questionnaire has been developed and the Executive Office of Management and Budget forms clearance process is under way.

Impact of Medicare Fee Freeze and Participation Agreements on Physicians

Project No.:	17-C-98758/1-03
Period:	September 1985-November 1988
Funding:	$ 975,747
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Terrence L. Kay Division of Reimbursement and Economic Studies

Description: The project will undertake policy research on how physicians have responded to the Medicare physician fee freeze and participation agreement. Both of these provisions were established in the Deficit Reduction Act of 1984 (Public Law 98-369). The primary objective is to determine whether physicians increased the volume of services provided or the levels and mix of services during the period when their fees and Medicare reimbursements were frozen. The fee freeze study will use 100 percent of the Medicare Part B claims files from the States of Alabama, Connecticut, Washington, and Wisconsin for calendar years 1983-86. Econometric analyses of the participation agreement will be performed using data from the 1984 Physicians' Practice Costs and Income Survey. Special analyses of the impact of the hospital prospective payment system on physicians and analyses of refinements in the way Medicare pays for physician services will also be conducted.

Status: Claims data for 1983-86 have been acquired and analytic files have been constructed for all four carriers. Data from 1984 were used to complete a report for three potentially "over-priced" procedures: lens implants, coronary artery bypass grafts, and pacemaker implants. Econometric analyses of the physician's decision to sign the Medicare Physician Participation Agreement, using the 1984 Physicians' Practice Costs and Income Survey, have also been completed. The following reports have been completed and are available from the National Technical Information Service: "What Should Medicare Pay for Surgical Procedures," accession number PB86-215605/AS, "To Sign or Not to Sign: Physician Participation in Medicare, 1984," accession number PB87-201463/AS, and "Learning by Doing: Productivity Gains for Surgeons Performing Coronary Artery Bypass Grafts," accession number PB88-239926/AS.

Analysis of Medicare Customary Charge Distributions

Project No.:	17-C-99229/3-01
Period:	June 1988-June 1989
Funding:	$ 89,000
Award:	Cooperative Agreement
Awardee:	HK Research Corporation 21 Governor's Court Baltimore, Md. 21207
Project Officer:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: The goals of this project are:

- To develop a data base on customary charge distributions in four States for multiple years.
- To analyze the distribution of customary charges relative to the prevailing charges with pricing locality over time.
- To simulate the redistributive effects of potential changes in physician payment parameters.

A data base will be developed by which customary charge distributions and variations will be examined. Simulations of the impact of alternative payment proposals will also be conducted.

Status: Discussions were held for negotiating the release of carrier data, obtaining a Part B Carrier Claims Manual, Health Care Financing Administration (HCFA) Common Procedure Coding System Manual, and establishing an account with the HCFA Data Center. Data tapes were received containing customary and prevailing charge screen data and provider master file data for Alabama, Arizona, Oklahoma, and Oregon. A project account was established at the HCFA Data Center, and the customary and prevailing charge tapes from Aetna were logged in.

A National Study of Resource-Based Relative Value Scales for Physician Services

Project No.:	17-C-98795/1-03
Period:	September 1985-September 1988
Funding:	$ 2,067,948
Award:	Cooperative Agreement
Awardee:	President and Fellows of Harvard College Harvard School of Public Health 1350 Massachusetts Avenue Holyoke Center, 4th Floor Cambridge, Mass. 02138
Project Officer:	Jesse M. Levy Division of Reimbursement and Economic Studies

Description: Phase I of this study develops a national resource-based relative value scale (RBRVS) and presents results for physician services in 18 specialties. This scale establishes relative values that are comparable across specialties. Resource-based relative values are hypothesized to be a function of physician work before, during, and after the service, specialty-specific relative practice costs, and specialty-specific relative

opportunity costs. Physicians were surveyed to determine the amount of work expended during the performance of 409 services and procedures. Weighted least squares was employed to make work across specialties comparable. Extrapolation techniques were used to generate relative values for additional nonsurveyed services in the studied specialties. The study shows there is a large variation in resource requirements both within and among specialties. Medicare charge to resource-based relative value ratios also show large variation. These ratios ranged from 0.2 to 0.5 for most evaluation and management services, and were greater than 1.0 for most hospital-based invasive procedures. The study also subjects the methodology and results to review by experts in various fields.

Status: Phase I of the study has been completed. The final report for Phase I is available in five volumes plus a data tape from the National Technical Information Service:

- Volume I—Executive Summary, accession number PB89-101828.
- Volume II—Data description and analysis, accession number PB89-101836.
- Volume III—Results and conclusions for surveyed procedures, accession number PB89-101844.
- Volume IV—Copies of surveys and other information, accession number PB89-101851.
- Volume V—Documentation for the data tape, accession number PB89-101869.
- Data tape (including Volume IV and Volume V documentation), accession number PB89-101810.

Phase II of the contract will extend the study to 16 more specialties. Phase II is in the developmental stage.

Creating Diagnosis-Related-Group-Based Physician Reimbursement Schemes: A Conceptual and Empirical Analysis

Project No.:	15-C-98387/1-02
Period:	September 1983-June 1987
Funding:	$ 554,035
Award:	Cooperative Agreement
Award:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Terrence L. Kay Division of Reimbursement and Economic Studies

Description: Under this project, conceptual analyses explored alternative diagnosis-related-group-based physician payment schemes, using alternative packaging methods developed under an earlier Health Care Financing Administration contract. Initial analyses were conducted using merged Medicare Part A and Part B claims data for New Jersey, North Carolina, Michigan, and Washington. Selected analyses of diagnosis-related group-based payment for physician radiology, anesthesia, and pathology services to inpatients were completed using data from Alabama, Connecticut, Washington, and Wisconsin.

Status: A first-year report on data from North Carolina and New Jersey and an interim report on data from all four States have been received. One article has been published from this study: "Physician diagnosis-related groups," *New England Journal of Medicine*, Vol. 313, 1985. A separate report entitled, "Diagnosis-Related Group-Based Payment for Radiology, Anesthesia, and Pathology Services," has also been received and focuses on physician radiology, anesthesia, and pathology services provided to hospital inpatients, and is available from the National Technical Information Service (NTIS), accession number PB87-230199/AS. The final report entitled, "Creating Diagnosis-Related Group-Based Physician Reimbursement Schemes: A Conceptual and Empirical Analysis," is also available from NTIS, accession number PB88-225297/AS.

Geographic and Temporal Variations in Medicare Physician Expenditures

Project No.:	17-C-98999/1-01
Period:	June 1987-June 1990
Funding:	$ 1,522,274
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Terrence L. Kay Division of Reimbursement and Economic Studies

Description: This project will address a broad range of physician payment issues. Primarily the project will focus around the initial construction of a data file using 1985-88 merged Part A and Part B claims from 10 carriers that represent all 9 census regions and 18 percent of Medicare beneficiaries. Examples of issues to be analyzed using these files include: overpriced surgical and anesthesia fees, decomposition of Part B expenditures into price and quantity components, effect of competition on price and quantity variation, variation in assignment rates and participation, inpatient and outpatient practice patterns and substitutions over time, and incentives provided by Medicare's at-risk payment rates. Simulations of selected physician payment changes will also be performed.

Status: Carrier claims data for 1985-87 have been received for all States. File construction, including data editing and analytic file creation, has been completed for several planned special studies of selected surgical procedures using 1986 data.

Interim Geographic Practice Cost Index

Project No.:	99-C-98526/1-05
Period:	March 1987-February 1989
Funding:	$ 158,397
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center

(See page 66)

Task Leader:	Deborah K. Williams Division of Reimbursement and Economic Studies

Description: This task provides the Health Care Financing Administration with assistance in developing and assessing interim indexes that account for justifiable geographic differences in the costs of physicians' practices. The indexes were mandated under the Omnibus Budget Reconciliation Act of 1986. This mandate required the Secretary of the Department of Health and Human Services to complete the interim indexes on or before January 1, 1988, and with the final indexes due 2 years later.

Status: The report on, "The Development of an Interim Geographic Medicare Economic Index" was received in December 1987. It addresses key conceptual issues and the appropriateness of available data sources. This report is available from the National Technical Information Service, accession number PB88-220678/AS. Currently, the awardee is in the process of refining the indexes using a 20-percent sample of census data. This research is expected to be completed by April 1989.

Refining the Geographic Practice Cost Index: Implications for Urban and Rural Areas

Project No.:	17-C-99222/3-01
Period:	June 1988-June 1990
Funding:	$ 100,000
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	Deborah K. Williams Division of Reimbursement and Economic Studies

Description: This study involves completing the analyses of the refined and updated Geographic Practice Cost Indexes (GPCI's) developed under contract to the Brandeis University Health Policy Research Consortium. The analyses performed will include evaluating the relationship among the various index alternatives, measuring how the refined and updated numbers differ from the interim set, and revising some earlier comparisons between prevailing charges and practice costs.

Status: All work on the development of the refined GPCI's is awaiting the overdue delivery of data from the U.S. Bureau of the Census.

Medicare Physician Experience Differentials

Project No.:	99-C-98489/9-05
Period:	July 1988-June 1989
Funding:	$ 30,401
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	William J. Sobaski Division of Reimbursement and Economic Studies

Description: Under current policies as defined by Medicare, new physicians are reimbursed at 80 percent of the prevailing rate for experienced physicians. This study will attempt to analyze whether the size of the payment differential is appropriate and whether current policies provide comparable incentives to encourage new and experienced physicians to treat Medicare patients.

Status: The study is in the early developmental stage.

Global Fees

Project No.:	99-C-98489/9-05
Period:	May 1988-June 1989
Funding:	$ 90,886
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: The Medicare fee for a surgical procedure that currently includes all normal and uncomplicated followup care is called a global fee. This fee includes the attending surgeon's visits to the patient while in the hospital and may include followup visits after the patient is discharged. Because the prospective payment system has resulted in large decreases in the length of hospital stays, further research is needed into global fee billings. This research will give better understanding of the changes taking place in the number of services and visits provided under a global fee as well as overall reimbursement and billing patterns. The purpose of this project, therefore, is to examine the issues relating to global fee billings and reimbursement patterns.

Status: Researchers from this Center have concentrated their activities on analyzing changes in the length of stay data for surgical procedures performed between 1979 and 1987. A draft report is expected December 1988.

Geographic Variation in Inpatient Physician Consultation Rates

Project No.:	99-C-98526/1-05
Period:	May 1988-February 1989
Funding:	$ 51,829
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Terrence L. Kay Division of Reimbursement and Economic Studies

Description: This study examines the distribution of Medicare Part B consultation dollars by physician specialty, beneficiary characteristics, geographic area, and

type of admission. Analyses will be performed on the variation in consultation rates across the country, as well as on the variation in procedure code distribution and in mean allowed charges per consultation. These analyses will include a comparison of hospital visits and consultations to determine whether these two services are being used interchangeably for billing purposes.

Status: The final report is expected early 1989.

Urban and Rural Differences in Physician Practices

Project No.:	99-C-98526/1-05
Period:	August 1988-July 1989
Funding:	$ 54,270
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Deborah K. Williams Division of Reimbursement and Economic Studies

Description: The purpose of this study is to provide a comprehensive comparison of urban and rural physician practices. Its objective is to create a general set of baseline data on physicians' practices in different types of communities. Among the kinds of questions to be explored are:

- Are physicians in rural areas likely to be younger than those located in urban communities?
- Is the rural specialty mix different from the urban one?
- Are solo practitioners more prevalent in rural areas than in urban communities?
- Are hospital affiliation patterns different in rural and urban areas?
- Do rural physicians work more hours and see more patients in an average week than their urban counterparts?
- Are rural physicians more or less dependent on public payers (Medicare and Medicaid)?
- Are third-party payment rates in rural areas (relative to usual fees) lower or higher than those in urban areas?
- Does Medicare's share of a physician's practice relate to other characteristics?

Status: This study is in the early developmental stage.

Urban and Rural Manpower Shortage Areas

Project No.:	99-C-98526/1-05
Period:	August 1988-July 1989
Funding:	$ 43,834
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Deborah K. Williams Division of Reimbursement and Economic Studies

Description: This project is evaluating the appropriateness of the Public Health Service shortage-area definitions for Medicare payment purposes. The criteria used for designating health manpower shortage-area status would be reviewed, as well as the geographic units actually used to define an area (e.g., the use of census tracts or smaller geographic areas). The project will also examine the stability of shortage-area definitions over time, and the feasibility of identifying these shortage areas from Medicare carrier data. Finally, the project would seek to evaluate the implications of urban manpower shortage-area bonus payments for physicians and any perverse incentives that might be introduced.

Status: The project is in the early developmental stage.

Diagnostic Test Interpretation and Medical Visit Billing

Project No.:	99-C-98526/1-05
Period:	May 1988-March 1989
Funding:	$ 113,346
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Terrence L. Kay Division of Reimbursement and Economic Studies

Description: An important source of increased Medicare Part B expenditures is the growing volume of diagnostic tests. This study is designed to document the frequency with which interpretation fees for these diagnostic tests are billed separately from the medical visits. The analyses will focus on diagnostic tests billed by the physician performing the visit. The study will also examine variations in billing practices for each type of test and visit, by physician specialty, and by area of the country. Finally, the study will simulate the redistributive impact of packaging visits and test interpretation into a single payment.

Status: The final report is expected March 1989.

Development of Physician Malpractice Index Reports

Project No.:	500-88-0032
Period:	July 1988-December 1988
Funding:	$ 96,786
Award:	Contract
Contractor:	Metrica, Inc. 2203 Timberloch Place, Suite 213, Drawer 13 The Woodlands, Tex. 77380
Project Officer:	William J. Sobaski Division of Reimbursement and Economic Studies

Description: The project seeks to develop three types of indexes of physician malpractice insurance costs, that is, fixed liability limits, actual premium expenditures by physicians, and constant risk. The latter index examines changes in the costs of sufficient malpractice insurance to provide a constant minimum risk of loss of physician earnings or capital from malpractice awards.

Status: As of September 30, 1988, all needed data arrangements had been made and two draft indexes

had been delivered. The first draft provided an index of the changes in physician malpractice premiums for a policy with fixed liability limits, and the second, an index of the changes in actual premium expenditures by physicians for malpractice insurance.

Malpractice Component of the Medicare Economic Index

Funding:	Intramural
Project Director:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: Each year, the Health Care Financing Administration (HCFA) publishes the Medicare Economic Index (MEI) (congressionally mandated by Public Law 92-603) for use in establishing the reasonable charges for physician services. The MEI is developed by HCFA's Office of the Actuary in accordance with the basic methodology set forth in 42 *Code of Federal Regulations* 405.504(a)(3)(i) from selected components of the Consumers Price Index or the Producers Price Index. Since January 1, 1987, the MEI increase factors have been established by Congress through Section 9331(c)(i) of Public Law 99-509 for fee-screen year (FSY) 1987, Section 4041(a) of Public Law 100-203 for the first 3 months of FSY 1988, Section 4042(b)(4)(F)(ii) of Public Law 100-203 for the remainder of FSY 1988, and Section 4042(b)(4)(F)(iii) of Public Law 100-203 for FSY 1989. HCFA's Office of Research and Demonstrations develops the data for the calculation of the malpractice component. Data for calculating the malpractice component of the MEI are obtained annually from major medical malpractice insurers. The medical malpractice component estimates the annual changes in medical malpractice insurance premiums for specific levels of coverage.

Status: The requisite data have been obtained so that results could be provided to HCFA's Office of the Actuary. Announcement of the MEI will be made in the *Federal Register*, for FSY 1989 (January 1, 1989 to December 31, 1989).

Other Studies

Payment Options for Nonphysician Anesthetists Under the Prospective Payment System

Project No.:	17-C-98759/1-01
Period:	September 1985-September 1987
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Cynthia K. Mason Division of Hospital Experimentation

Description: This project was a 2-year econometric study of the provision of anesthesia services to surgical patients in hospitals. The primary purpose of the project was to assist the Health Care Financing Administration (HCFA) in the preparation of a congressionally mandated study (Section 2312(d) of the Deficit Reduction Act of 1984) of Medicare payment options that would not discourage the use of certified registered nurse anesthetists (CRNA's) by hospitals. The study addressed two broad questions:

- What are the technically and economically efficient uses of nonphysician anesthetists as substitutes for and complements to anesthesiologists in providing hospital anesthesia services?
- What are the direction and magnitude of any changes in the use of nonphysician anesthetists that could be expected under each possible prospective payment system payment option?

The Center for Health Economics Research (CHER) conducted the study using two basic approaches. In order to gather information on the range of CRNA activities and the types of cases in which CRNA's are involved, CHER's subcontrator, American Institutes for Research, conducted a nationwide telephone survey of CRNA's and anesthesiologists. Following completion of the survey in late October 1986, the resulting data were analyzed by CHER. In the interim, CHER analyzed secondary data and reviewed available literature to assess anesthesia quality issues and provider practice patterns.

Status: CHER's initial draft report, submitted in early 1987, served as the basis for HCFA's Report to Congress on the subject. CHER's final report has been accepted and is being reviewed.

Impact of Physician Assistant Reimbursement Change Under Medicare

Project No.:	17-C-99146/3-01
Period:	July 1987-December 1987
Funding:	$ 71,412
Award:	Cooperative Agreement
Awardee:	The People-to-People Health Foundation, Inc. (Project Hope) Center for Health Affairs Suite 500 Two Wisconsin Circle Chevy Chase, Md. 20815
Project Officer:	Joseph M. Cramer Division of Hospital Experimentation

Description: This project examined the extent to which Medicare physician assistant (PA) payment rates cover the costs of furnishing PA services. The rates were established by Section 9338 of the Omnibus Budget Reconciliation Act of 1986, with an effective date of January 1, 1987. The study provided information to assist the Health Care Financing Administration in preparing a Report to Congress. The study approach, which was adopted because of the limited timeframe allowed under the congressional mandate, included the development of simulation models to determine whether providers are potentially covering their PA costs through the newly established Medicare rates. The mathematical modeling was augmented by a case study in which structured telephone interviews of 33 PA employers were conducted to gather information

on various characteristics of the PA employers (e.g., payer mix, size, geographic location, whether they have heard of the new payment legislation, and limited anecdotal information about why they employ PA's). Some of the employers interviewed were selected for more indepth onsite interviews. The study included the following tasks:

- A review of the PA literature.
- A profile of PA employment patterns.
- A discussion of PA payment policies.
- Development of a conceptual framework for the study.
- Implementation of the conceptual framework.
- Modification of the model and completion of analyses.
- Submission of a final report.

Status: The project has been completed and the Report to Congress was released on August 12, 1988. The report entitled, "The Impact of the Physician Assistant Reimbursement Change Under Medicare," is available from the National Technical Information Service, accession number PB88-249883/AS.

Enhancement, Validation, and Analysis of Central Office Statistical Files

Project No.:	500-86-0021
Period:	August 1986-December 1988
Funding:	$ 695,154
Award:	Contract
Contractor:	Social and Scientific Systems Inc. 7101 Wisconsin Avenue, Suite 610 Bethesda, Md. 20814
Project Officer:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: The objective of this contract is to improve the quality and utility of the Health Care Financing Administration (HCFA) central/statistical files, especially those concerning physician services. Tasks under this contract include: conducting orientation conferences to review the objectives and instructions for preparing the Part B Medicare annual data (BMAD) files; beneficiary and provider file enhancements; BMAD file validation and cleansing; and special statistical tasks on an as-needed basis.

Status: In addition to the orientation conferences, the contractor completed the beneficiary and provider file enhancement, development of 1984 and 1985 BMAD file validation process, and 1985 BMAD file error-checking routines and several special statistical requests to process BMAD and non-BMAD data. The contractor recently completed the development of a data base of malpractice premium rates for the period from 1975 to 1986.

Independent Practice Association Physician Relationships

Project No.:	99-C-98526/1-05
Period:	July 1988-March 1989
Funding:	$ 78,622
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Sherry A. Terrell Division of Reimbursement and Economic Studies

Description: One of the fastest growing types of capitated systems is the independent practice association (IPA) that now has half of the health maintenance organization (HMO) enrollment and is expected to dominate the HMO market in the future. Types of IPA's include: all IPA physicians in one risk pool; an individual physician at risk; and a medical group practice at risk. The purpose of this study is to investigate the arrangement that IPA's have with physicians in order to develop policy options for Medicare.

Status: The project is in the early developmental stage.

Physician Preferred Provider Demonstration

Project No.:	99-C-99169/5-01
Period:	May 1988-February 1989
Funding:	$ 213,991
Award:	Cooperative Agreement
Awardee:	University of Minnesota Research Center (See page 67)
Task Leader:	Victor G. McVicker Division of Hospital Experimentation

Description: This project involves the planning and implementation of a preferred provider organization (PPO) demonstration for physician services offered to Medicare beneficiaries as a program option. The project subtasks include:

- Analyzing and identifying site selection criteria, provider and beneficiary participation incentives, administration procedures, and the potential savings to the Health Care Financing Administration.
- Identifying potential sites and soliciting letters of interest.
- Requesting applications.
- Preparing waiver cost estimates.
- Reviewing implementation plans of selected sites and monitoring progress.

Status: The University of Minnesota, through its subcontractor, Mathematica Policy Research, Inc., has been successful in performing the preliminary activities necessary for implementing this demonstration. Applications are now being received from PPO sites that are interested in participating. Site selections are expected to occur by December 1988.

Physician Preferred Provider Organization Demonstration Design

Project No.:	99-C-98526/1-05
Period:	May 1988-August 1988
Funding:	$ 40,000
Award:	Cooperative Agreement

Awardee: Brandeis University Research Center
(See page 66)
Task Leader: Michael A. Hupfer, Division of Hospital Experimentation

Description: Researchers from the Brandeis Center will study alternative physician preferred provider organization (PPO) models similar to the one being developed by Mathematica Policy Research, Inc., under subcontract with the University of Minnesota. In addition, these researchers will design a cost simulation model capable of showing how the Health Care Financing Administration's (HCFA's) PPO demonstration design decisions (e.g., the Part A inclusion) relate to HCFA policy goals.

Status: The report entitled, "Comprehensive Preferred Provider Organization Models for Medicare," was received on September 1, 1988.

Determinants of Cost of Care: The Influence of Physician Style versus Patient Characteristics

Project No.: 99-C-99169/5-01
Period: September 1988-November 1989
Funding: $ 124,997 (Associate Secretary for Planning and Evaluation Funded Project)
Award: Cooperative Agreement
Awardee: University of Minnesota Research Center
(See page 67)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: Significant variations in the cost of managing patients with the same diagnosis have been documented. This study will help determine what percent of variance in the cost of care is caused by the physicians' unique practice patterns and what percent is caused by differences in patient population characteristics and disease severity. Methods will also be developed to explore the relationships among disease severity, comorbidity, and resource use in the specific care of Medicare patients with myocardial infarctions.

Status: This study is in the early developmental stage.

Diagnostic Tests—Technical Components

Project No.: 99-C-99169/5-01
Period: May 1988-February 1989
Funding: $ 106,479
Award: Cooperative Agreement
Awardee: University of Minnesota Research Center
(See page 67)
Task Leader: Sherry A. Terrell, Division of Reimbursement and Economic Studies

Description: Diagnostic test use in the Medicare program is growing and is believed to be an important factor in the rise of Part B outlays. The objectives of this project will be to:

- Examine whether diagnostic tests are currently being billed as technical components or as global fees.
- Study the variations in Medicare payments for the technical component of high-volume diagnostic tests.
- Analyze alternative methodologies and criteria to judge whether payment levels for the technical components are excessive.
- Explore the feasibility of using information on rates of return for diagnostic test equipment to determine whether Medicare payment levels are excessive.
- Document the types of equipment that are typically used in physicians' offices and how these vary by specialty and by size of physician practice.

Status: The University of Minnesota, through its subcontractor, the University of Pennsylvania, has identified the diagnostic tests to be studied based on Medicare expenditures for the test, frequency of occurrence, perceived profitability, and other factors. Pennsylvania will analyze variations in the volume of, and payments for, these procedures across areas and specialties. Information is also being gathered on the prices private sector providers and insurers pay for these tests. A draft final report is expected early 1989.

Hospital Payment

Prospective Payment System Refinements

A Diagnosis-Related-Group-Based Case-Mix Analysis of Oncology Care in Comprehensive Cancer Centers

Project No.: 15-C-98922/1-01
Period: August 1986-April 1989
Funding: $ 461,000
Award: Cooperative Agreement
Awardee: Brandeis University
45 South Street
Waltham, Mass. 02254
Project Officer: John T. Petrie, Division of Reimbursement and Economic Studies

Description: The short-term goal of this project is to improve the ability of the current diagnosis-related group (DRG) system to account for variability within DRG's that contain cancer diagnoses. The long-term goal is to develop a classification methodology that can discriminate among admissions with different resource requirements for three types of cancer: colon, breast, and lung. There are two components to this project:

- A secondary data analysis of Medicare provider analysis and review (MEDPAR) files from 1984, 1985, and 1986 for three types of cancer. The purpose of this exercise is to suggest a typology for Medicare cancer discharges.
- A retrospective record review in five Boston area hospitals—two major teaching hospitals, one nonteaching hospital, and two community hospitals.

All analyses are focused on the Medicare population and include data on several years of utilization and resource use experience to compare patient characteristics and treatment settings. The data and analysis will help us learn more about how to design a refined case-mix classification system that incorporates substitutions and efficiencies affected by the shift to outpatient settings. The longitudinal approach to the analysis is also meant to serve as an important step in developing capitated payment models.

Status: The researchers have recently completed the construction of a linked 1984, 1985, and 1986 MEDPAR data file for beneficiaries who had an inpatient discharge with a principal diagnosis of cancer. The analysis has focused on determining the volume and costs associated with cancer-related discharges. They have also begun to examine the utility of grouping discharges by primary anatomical site of cancer and the usefulness of modifying the leading cancer DRG's using primary site and other variables. The researchers examined the case mix and charges for chemotherapy treatment for inpatient discharges for DRG number 410 (admission for chemotherapy) from eight teaching hospitals and for outpatient visits from two teaching hospitals. Findings were published in an article entitled, "Case mix and charges for inpatient and outpatient chemotherapy," in the *Health Care Financing Review*, Vol. 8, No. 4, Summer 1987. The researchers also developed and tested a survey instrument in order to undertake retrospective medical record review in five Boston-area hospitals. Current work involves abstracting information for about 750 records at these hospitals to gather data on inpatient stays, followup admissions, and related outpatient care.

Severity of Illness and Diagnosis-Related Groups in Selected Cancers

Project No.:	15-C-98678/4-03
Period:	January 1985–June 1988
Funding:	$ 214,010
Award:	Cooperative Agreement
Awardee:	University of Miami School of Medicine Comprehensive Cancer Center for the State of Florida P.O. Box 016960, D8-4 Miami, Fla. 33101
Project Officer:	Alvin L. Freedman Division of Reimbursement and Economic Studies

Description: This project utilized existing data bases to evaluate the relationship between the intensity of disease and the cost of treating the disease for five common types of cancer—colon and rectum, lung, breast, cervix, and prostate. These five types of cancer represent more than 50 percent of new cancer cases. The project utilized a staging algorithm developed by the American Joint Committee on Cancer as an adjunct to the current diagnosis-related group (DRG) system for the five types of cancer.

Status: This study was awarded because of the Health Care Financing Administration's (HCFA's) interest in DRG refinement issues, as well as its interest in policy development regarding hospitals that may attract more complex, sicker patients. The analysis of the data utilized in the study showed that, on average, cost of care and length of stay for cancer patients exceeded that for noncancer patients within the same DRG because of the generally poorer health of cancer patients. Among cancer-related discharges, costs often differed by stage of disease. A final report was submitted to HCFA in October 1988.

Diagnosis-Related Group Refinement and Diagnostic-Specific Comorbidities and Complications: A Synthesis of Current Approaches to Patient Classification

Project No.:	17-C-98930/1-02
Period:	August 1986–December 1988
Funding:	$ 576,267
Award:	Cooperative Agreement
Awardee:	Yale University School of Organization and Management P.O. Box 1A New Haven, Conn. 06520
Project Officer:	Harry L. Savitt Division of Beneficiary Studies

Description: This project proposes to examine the effect of patient comorbidities and complications on hospital resource use. It will investigate whether the relationship between selected diagnoses and hospital utilization depends on the presence of other diagnoses. It also seeks to make recommendations to modify the current diagnosis-related groups (DRG's) using diagnostic-specific comorbidities and complications to define the more complex types of patients with high levels of utilization.

Status: The project is in its second year. During the first year, four technical advisory committee meetings were held. Data were obtained from six sources: Medicare provider analysis and review file, Hospital Discharge Survey, Maryland, California, New Jersey, and Stanford University. A hierarchy and clinical evaluation of secondary diagnoses were developed. Disease staging and other patient classification schemes were reviewed and evaluated. Operating room and non-operating room procedures were reviewed. During the second year, forward selection process models are continuing to be developed, refined, and simplified. Analysis of adjacent DRG's is continuing. The project staff will review results and make recommendations regarding the incorporation of specific comorbidities and complications into DRG definitions. Comparisons of the modified DRG's will be made with the current version and will be based on selected criteria for developing and evaluating patient-classification schemes or measures of case mix that have been discussed in the literature. A final report is expected by December 1988.

Disease-Specific Severity Adjustments to Diagnosis-Related Groups

Project No.:	15-C-98833/6-02
Period:	January 1986-February 1988
Funding:	$ 280,129
Award:	Cooperative Agreement
Awardee:	Tulane School of Public Health and Tropical Medicine 1430 Tulane Avenue New Orleans, La. 70112
Project Officer:	Jeanette M. Smith Division of Beneficiary Studies

Description: This study is an empirical investigation of the efficacy of seven different methods of adjusting for severity of illness in diagnosis-related groups (DRG's) related to acute myocardial infarction. The purpose of this study is to determine the equity of the current DRG payments for patients suspected of having heart attacks. This is one of several studies designed to analyze the degree to which DRG's properly account for severity.

Status: This cooperative agreement was awarded in September 1985. The starting date of the project was January 1, 1986. Some preliminary planning was initiated during Fall 1985. Since that time, the full research team has been assembled, data collection forms have been designed, the medical records personnel have been trained, and data collection has begun. Data entry, editing, and analysis have been completed and the final report has been received and is being reviewed.

Methods to Improve Case-Mix and Severity of Illness Classification for Use in the Medicare Prospective Payment System

Project No.:	17-C-98840/1-03
Period:	September 1985-December 1988
Funding:	$ 1,377,664
Award:	Cooperative Agreement
Awardee:	The Health Data Institute 20 Maguire Road Lexington, Mass. 02173
Project Officer:	Timothy F. Greene Division of Reimbursement and Economic Studies

Description: This study, which contributes to the Health Care Financing Administration's (HCFA's) congressionally mandated research on diagnosis-related groups refinement under Public Law 98-21, was intended to support investigation of alternative HCFA policies, assess multivariate severity models, and examine use of additional clinical and service items as severity and functional status adjusters. The project has developed data bases of Colorado Medicare Parts A and B data and clinical indicators of resource use abstracted from medical records in Boston-area hospitals. It is using national data, principally collected by the Office of Inspector General, Department of Health and Human Services, to validate results from analyses of the Boston data.

Status: The study has concentrated its efforts on evaluation of the potential use of clinical data available in medical records in explaining resource use within and across DRG's. Specifically such measures explain between 20 and 50 percent of variation in resource use in models using Boston area data. The project now is completing analysis of the Boston data and validating the results on the national data. Also the project is identifying clinical variables correlated with outcomes, developing models to predict adverse outcomes, using the models to adjust hospital case mix in various data sets, and attempting to develop criteria for identifying avoidable adverse outcomes. Work on the project has provided support for the intramural Mortality Predictors Project. Models were developed by the Office of Research and Demonstrations to predict the probability of death of Medicare acute care hospital patients with stroke, pneumonia, myocardial infarction, and congestive heart failure. The resulting models were incorporated in microcomputer software prepared by the grantee and available from the National Technical Information Service, accession number PB88-240171/AS.

Administratively Necessary Days

Project No.:	99-C-98489/9-05
Period:	May 1987-October 1988
Funding:	$ 19,973
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Paul A. Gurny Division of Hospital Experimentation

Description: This project will use an existing data base to provide information to the Health Care Financing Administration (HCFA) in support of a report on administratively necessary days. An administratively necessary day is a day of subacute care provided by a hospital when no skilled nursing bed is available. This project will provide information on these topics:

- Which diagnosis-related groups are associated with the use of skilled nursing facility (SNF) care after discharge from acute care hospitals.
- Whether patients who use SNF care have significantly different hospital lengths of stay than do patients who do not use SNF care.
- The extent to which health care market characteristics explain the wide variation among States in the use of SNF services by Medicare beneficiaries.

Status: Findings on the first two topics were presented to HCFA in March 1988. Data on the last topic have been gathered and analyzed and a draft report setting forth its findings is expected by early 1989.

Direct Medical Education Under the Prospective Payment System

Project No.:	99-C-98489/9-05
Period:	May 1987-April 1988
Funding:	$ 37,624
Award:	Cooperative Agreement

Awardee: The Rand Policy Research Center (See page 65)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: This project involves studying an issue arising from the changes in Medicare payments for direct medical education that are contained in Public Law 99-272. The issue to be studied relates to the causes for the large observed variations in direct medical education costs per full-time-equivalent (FTE) resident physician across teaching hospitals.

Status: The final working draft for this project is entitled, "Medicare Payments for Direct Medical Education" (WD-3827-HCFA) and is available from Rand. The conclusion is that at least three sources account for the observed variations in direct medical education costs. These sources are lack of uniformity in accounting practices; inaccuracies in the measurement of FTE residents; and actual differences in the cost of training residents.

Indirect Medical Education Under the Prospective Payment System

Project No.: 99-C-98489/9-05
Period: May 1987-December 1988
Funding: $ 42,072
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center (See page 65)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: The overall purpose of this project is to study whether the amount of indirect medical education payments made under the prospective payment system to teaching hospitals exceeds the true costs of indirect medical education. Using existing data, Rand researchers will be studying various aspects of the indirect medical education formula as well as hospital behavior with respect to the use of hospital beds.

Status: Work on this project was delayed because of the late arrival of the cost report data needed to perform the analysis. A final report is expected by December 1988.

Alternative Recalibration Methods Under the Prospective Payment System

Project No.: 99-C-98489/9-05
Period: May 1987-October 1988
Funding: $ 95,280
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center (See page 65)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: The main purpose of this project is to evaluate three methods of calculating diagnosis-related group (DRG) relative weights. One method is based on costs, another on charges, and still another on an alternative method for standardizing weights. The Health Care Financing Administration is legislatively mandated to recalibrate the DRG weights each year.

Status: The final report entitled, "Comparison and Evaluation of Alternative DRG Weight Recalibration Methods," has been drafted and reviewed, and technical modifications have been made. The final version is expected by October 1988.

Development of Alternative Prospective Payment System Outlier Payment Options

Project No.: 99-C-98489/9-05
Period: May 1987-September 1988
Funding: $ 132,473
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center (See page 65)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: The goal of this project is to develop and analyze alternative policies for determining the additional payments under the prospective payment system that are made to hospitals for exceptionally long and/or costly cases. These payments are referred to as outlier payments. Research will focus on the clinical characteristics of the patients generating extremely costly outlier episodes, the characteristics of hospitals that typically serve these patients, and the risk that hospitals face in receiving more than their share of costly cases.

Status: The project was near completion as of September 1988. During the project period, Rand evaluated the outlier payment policy proposed by the Health Care Financing Administration (HCFA) in June 1987. Rand also made substantial progress on its examination of the clinical characteristics of outlier cases. Two publications on the project are: "An Evaluation of HCFA's Proposal for Fiscal Year 1988 Outlier Payments," (WD-3565) and "Insurance Aspects of DRG Outlier Payments" (N-2762-HCFA). These publications are available from the Rand Corporation.

Simulations of Alternative Prospective Payment System Outlier Payment Options

Project No.: 99-C-98489/9-05
Period: August 1988-May 1989
Funding: $ 55,310
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center (See page 65)
Task Leader: Philip G. Cotterill, Division of Reimbursement and Economic Studies

Description: This project is a continuation of the Development of Alternative Prospective Payment

System Outlier Payment Options project. The purpose of this project is to simulate various outlier payment policies and analyze their effects on mean payments to groups of hospitals, on financial risk to groups of hospitals, and on the financial risk that patient groups pose to hospitals. Rand will for purposes of this study update the data base used in the initial outlier project.

Status: The project is in the early developmental stage. The updated data base is expected to be available by October 1988. Simulations of outlier payment policies will be conducted as requested by the Health Care Financing Administration.

Uncompensated Care Tables: 1984 American Hospital Association and Urban Institute Survey

Project No.:	99-C-98526/1-05
Period:	August 1988-October 1988
Funding:	$ 32,126
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center
	(See page 66)
Task Leader:	John T. Petrie Division of Reimbursement and Economic Studies

Description: This project involves an analysis of data on the distribution of the uncompensated care burden. The analyses will also include data obtained from a special 1984 American Hospital Association and Urban Institute Survey on health care for the poor and underinsured, as well as data from the Current Population Survey, and other data sources. Information gathered from this analysis will be used to produce data tables. These tables will be used by the Office of Research and Demonstrations to update the Report to Congress entitled, "Appropriate Treatment of Uncompensated Care," as mandated by Public Law 98-21.

Status: The data tables are scheduled for delivery November 1988. The information will be included in the Report to Congress on uncompensated care mandated by Public Law 98-21.

Hospital Transfer and Referral Patterns

Project No.:	99-C-99168/3-01
Period:	May 1988-July 1989
Funding:	$ 56,849
Award:	Cooperative Agreement
Awardee:	Project Hope Research Center
	(See page 67)
Task Leader:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: The objective of this task is to design and develop a longitudinal data base containing information on transfer and referral activities in Medicare hospitals. The data base will include data for a 2- to 4-year period and will be created from the Health Care Financing Administration (HCFA) Master Provider of Services File and the HCFA Medicare Providers Analysis and Review File. Data on hospital transfer and referral activities will be used in developing hospital market share measures to assess the impact of the prospective payment system (PPS), exploring reasons for variations in hospital costs, and evaluating transfer and referral measures as appropriate refinements or replacements for current PPS rate adjustments.

Status: Current data sets and related documentation have been reviewed and draft specifications for the data base design have been developed. Actual data base construction will begin by Fall 1988.

Prospective Payment System Impact

Selected Analyses of the Prospective Payment System's Impact on Hospitals' Behavior

Project No.:	18-C-98606/3-03
Period:	July 1984-March 1989
Funding:	$ 549,657
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: This project is in support of the prospective payment system (PPS) evaluation that is congressionally mandated under the Social Security Amendments of 1983 (Public Law 98-21). It was intended to include an analysis of the impact of the Medicare hospital prospective payment system (PPS) on three types of hospital behavior: the provision of services to Medicare beneficiaries by hospital outpatient departments; the discharge of Medicare beneficiaries to and provision of long-term care and home health services; and changes in hospitals' corporate structure and internal organization. Other aspects of hospital behavior, including measures of utilization and costs, were also to be examined. The analysis was to be based primarily on data from a series of hospital surveys conducted by the Urban Institute and the American Hospital Association (AHA). Data on hospital revenue and expenses in 1980 and 1982 were used to project expected hospital performance in a pre-PPS environment and compared with data on actual hospital performance in 1984 and 1985.

Status: Analysis of data from 1980, 1982, and 1984 has produced evidence that PPS did, in fact, have an effect on the rate of change of hospital cost per case and length of stay. Analysis of AHA data on hospital performance during 1985 indicates further that the fiscal pressure felt by hospitals during the first year of PPS had a significant effect on their second-year behavior. A broader examination of hospital financial status and the response to PPS incentives are currently under way. Results of the discussion from the first-

year analysis were published in an article entitled, "How did Medicare's prospective payment system affect hospitals?," *New England Journal of Medicine*, Vol. 317, No. 14, October 1, 1987.

Impact of Medicare's Prospective Payment System and Private Sector Initiatives: The Blue Cross and Blue Shield Organization's Experiences

Project No.:	17-C-98757/5-02
Period:	September 1985-November 1988
Funding:	$ 319,335
Award:	Cooperative Agreement
Awardee:	Blue Cross and Blue Shield Association 676 North St. Clair Chicago, Ill. 60611
Project Officer:	Timothy F. Greene Division of Reimbursement and Economic Studies

Description: This study, which contributes to the Health Care Financing Administration's congressionally mandated evaluation of the prospective payment system (PPS) under Public Law 98-21, evaluates the impact of PPS and Blue Cross/Blue Shield cost-containment strategies on the payment and utilization experience of the Nation's Blue Cross/Blue Shield plans. The project has developed data on cost-containment strategies and methods of hospital payment of Blue Cross plans. The research analyzes the interaction between PPS and Blue Cross/Blue Shield cost-containment strategies. It also analyzes the relationship between health care utilization and payments and the formation of alternative delivery systems (health maintenance organizations and preferred provider organizations) by Blue Cross plans. The study uses data from individual Blue Cross/Blue Shield plans supplemented by secondary data from other sources.

Status: Analyses of trends in payments and utilization rates for Blue Cross/Blue Shield plans were prepared and used in preparation of the 1985 and 1986 Annual Reports to Congress on the *Impact of the Medicare Hospital Prospective Payment System*. A report on the impact of PPS and cost-containment initiatives on Blue Cross utilization and payments for the period 1980-86 was submitted. The report is available from the National Technical Information Service, accession number PB88-248604. Analysis is continuing on 1987 data and on the study of alternative delivery systems.

Prospective Payment and Analytical Support Studies

Project No.:	500-85-0015
Period:	September 1985-December 1988
Funding:	$ 5,448,000
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Sydney P. Galloway Office of Operations Support

Description: This project provides data collection and statistical analysis in support of the congressionally mandated (Public Law 98-21) Annual Report on the *Impact of the Medicare Hospital Prospective Payment System* (PPS), other congressionally mandated reports, and other PPS-related studies. Individual work assignments are made throughout the project focusing on specific aspects of these studies and reports. The work assignments fall under several general headings:

- Impact on hospitals.
- Impact on Medicare beneficiaries.
- Impact on other payers for inpatient hospital services.
- Impact on other providers of health care.
- Impact on Medicare program operations and expenditures.
- Data collection and manipulation, and project management and coordination.

Status: As of September 30, 1988, 25 work assignments had been made under this contract and all were either completed or in their final stages. A replacement contract was awarded in June 1988 to Abt Associates, 500-88-0035. This contract and its replacement were allowed to continue concurrently until December 1988.

Project No.:	500-86-0017
Period:	April 1986-March 1989
Funding:	$ 1,445,000
Award:	Contract
Contractor:	System Sciences, Inc. 4330 East-West Highway Bethesda, Md. 20814
Project Officer:	Sydney P. Galloway Office of Operations Support

Description: This is a companion to the previous contract 500-85-0015 with Abt Associates, Inc., and it deals with the prospective payment system (PPS)-related areas not covered by other cooperative agreements or contracts. The assignments involved the impact of PPS on the provision of physician services and an examination of post-hospital subacute care (aftercare) services.

Status: As of September 30, 1988, five work assignments had been made under this contract but only the aftercare work was still ongoing.

Prospective Payment System Studies

Project No.:	500-88-0035
Period:	June 1988-December 1990
Funding:	$ 1,836,392
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: This project continues the support for the prospective payment system (PPS) studies provided under the previous contract with Abt Associates, 500-85-0015, on the impact of the Medicare hospital PPS, other congressionally mandated reports, and other PPS-related studies.

Status: As of September 30, 1988, the contractor was engaged in the transfer of functions from the previous contract and planning the next set of analyses with the project officer.

Natural History of Post-Acute Care for Medicare Patients

Project No.:	17-C-98891/5-01
Period:	December 1986-September 1990
Funding:	$ 3,373,670
Award:	Cooperative Agreement
Awardee:	University of Minnesota School of Public Health 420 Delaware Street, SE., Box 197 Minneapolis, Minn. 55455
Project Officer:	Marni J. Hall Division of Reimbursement and Economic Studies

Description: This is a study of the course and outcomes of post-acute care. It has two major components: analysis of Medicare data to assess differences in patterns of care across the country and to determine the extent of substitution where various forms of post-acute care services are more or less available, and detailed examination of clinical cases from the most common diagnostic-related groupings receiving post-acute care in a few selected locations. Measures of the complexity of the clinical cases will be developed using a modification of the medical illness severity grouping system. This project is jointly funded with the Office of the Assistant Secretary for Planning and Evaluation.

Status: Data collection is currently under way. A report of the findings from the analysis of national Medicare data is expected early in 1989. This project has recently been expanded to examine questions raised about the need for and the consequences of providing long-term care in the Medicare Catastrophic Coverage Act of 1988.

Prospective Payment System and Post-Hospital Care: Use, Cost, and Market Changes

Project No.:	18-C-98852/3-02
Period:	September 1985-March 1989
Funding:	$ 706,118
Award:	Cooperative Agreement
Awardee:	Georgetown University Center for Health Policy Studies 2233 Wisconsin Avenue, NW. Washington, D.C. 20007
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The purpose of the project is to determine how much the hospital prospective payment system (PPS) shifts care from the hospital to skilled nursing facilities (SNF's) and home health providers and to analyze the impact of this shift on total costs to Medicare and on changes in SNF characteristics that are likely to cause an increase in use by Medicare beneficiaries in the future. Medicare claims will be analyzed to determine how PPS has affected total service use (hospital, SNF, and home health) and costs for hospital patients. In addition, SNF's will be surveyed to identify changes in nursing home patients, services, and market structure likely to affect Medicare use. The survey will be supplemented with data from the Medicare/Medicaid Automated Certification System (MMACS), SNF cost reports, and other sources.

Status: Major project activities include:

- Completion of nursing home survey.
- Analysis of survey and MMACS data.
- Initiation of claims analysis.
- Completion of 1982 and 1985 Medicare claims processing for pre/post-PPS analysis.
- Completion of a three-stage sampling process of study hospitals.

Impact of the Prospective Payment System on Post-Hospital Care

Project No.:	99-C-98489/9-05
Period:	May 1986-March 1988
Funding:	$ 226,652
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The principal purpose of this project has been to describe changes in the use of and charges for Medicare reimbursed skilled nursing and home health care. The study period ranges from shortly before the introduction of the Medicare prospective payment system to the period immediately following it. In performing this analysis, data bases, constructed by Rand, were used to link Medicare billing records for hospital care with those of post-hospital care.

Status: The project was completed by March 1988. The Rand report entitled, "Post-Hospital Care Before and After the Medicare Prospective Payment System," has been issued and is available from The Rand Corporation (R-3590-HCFA).

Study of Patient Selection Under the Prospective Payment System

Project No.:	99-C-98489/9-05
Period:	May 1987-August 1988
Funding:	$ 57,942
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)

Task Leader: Marian E. Gornick
Division of Beneficiary Studies

Description: The purpose of this project is to determine whether patients who receive treatment in diagnosis-related groups (DRG's) that appear unprofitable or relatively less profitable are systematically transferred or otherwise discriminated against by hospitals and/or physicians because of the DRG payment system.

Status: This project is near completion. A draft paper entitled, "Do Unprofitable Patients Face Access Problems?" (WD-4063-HCFA) has been submitted to the Health Care Financing Administration.

Diagnosis-Related Group Outlier Payment Effect on Quality of Care

Project No.: 99-C-98489/9-05
Period: August 1988-August 1989
Funding: $ 90,125
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Harry L. Savitt
Division of Beneficiary Studies

Description: The purpose of this research is to use the gathered detailed clinical data of 15,000 patients for the diagnosis-related group/quality of care study. This study is designed to address two specific questions: Do outlier payments have any effect on levels and quality of care? What factors are responsible for extremely expensive or long hospital stays?

Status: The project is in the early developmental stage.

Predicting Hospital Operating Costs from Previous Cost Reports

Project No.: 99-C-98489/9-05
Period: May 1987-March 1989
Funding: $ 70,953
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Stephen F. Jencks
Office of Research

Description: This project is aimed at using prior year hospital costs to predict future year costs. If successful, this analysis could be helpful in improving the accuracy of assessing the impact of the annual prospective payment system rate changes on hospital payments.

Status: Rand researchers have investigated a number of methodological and substantive issues concerning the assessment of hospital profitability under the diagnosis-related group payment system. A final report on the project is expected July 1989.

Review of New Jersey's Prospective Payment System

Project No.: 99-C-98489/9-05
Period: May 1986-October 1988
Funding: $ 207,532
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Cynthia K. Mason
Division of Hospital Experimentation

Description: This project is designed to analyze New Jersey's prospective payment system. New Jersey has the oldest diagnosis-related group-based prospective payment program in the country and, like the Medicare system, New Jersey's system is based on paying hospitals a lump-sum payment for each admitted patient.

Status: This project has been completed. The final report, "Hospital Costs and Patient Access Under the New Jersey Diagnostic-Related Group-Based All-Payor Hospital Ratesetting System" (R-3601-HCFA), is in the publication process and is expected to be available from Rand by December 1988.

Interaction Between Medicare Payments and Nursing Shortages

Project No.: 99-C-99168/3-01
Period: March 1988-October 1988
Funding: $ 62,170
Award: Cooperative Agreement
Awardee: Project Hope Research Center
(See page 67)
Task Leader: Timothy F. Greene
Division of Reimbursement and Economic Studies

Description: The purpose of this task is to examine the interaction taking place between the Medicare prospective payment system (PPS) and the nursing shortage being reported by many hospitals in many areas of the country. Issues to be addressed include the nature and existence of a nursing shortage, possible causes for this shortage, the impact of this shortage on quality of and access to care for Medicare beneficiaries as well as the contributions of PPS relative to other influences.

Status: Project tasks have been completed and a draft final report has been received and is being reviewed.

Learning From and Improving Diagnosis-Related Groups for End Stage Renal Disease Patients

Project No.: 14-C-98596/3-02
Period: September 1984-May 1987
Funding: $ 350,000
Award: Cooperative Agreement
Awardee: The Urban Institute
Health Policy Center
2100 M Street, NW.
Washington, D.C. 20037
Project Officer: Paul W. Eggers
Division of Beneficiary Studies

Description: The introduction of prospective payment by diagnosis-related groups has drastically altered the

incentives in medical care. The purpose of this project is to study the responses of providers at the level of individual patients and diagnoses in end stage renal disease, an area on which abundant data are available. Specific issues to be addressed include the possibility of selection of diagnoses to maximize reimbursement, alteration of discharge and admission patterns and other forms of cost shifting, and the selection of patients for admission. Specifically, patients will be characterized in terms of major demographic and prognostic factors, including measures of severity of illness. Patterns of diagnostic categorization, admission patterns, and treatment costs will be compared for homogenous groups before and after the prospective payment system.

Status: The final report is expected by Fall 1988.

Financial Impact of Prospective Payment System on Hospitals

Prospective Payment System Impacts on Rural Hospitals

Project No.:	17-C-99102/1-01
Period:	June 1987-June 1989
Funding:	$ 331,817
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: This project is conducting descriptive analyses and econometric estimation of factors that lead to financial problems for rural hospitals. Case studies focusing on a description of the rural hospital environment, the problems faced by rural hospitals, and their responses to these problems are also planned in nine areas across the country. The work includes a review of the literature on the economics of rural hospitals, the development of a behavioral model of rural hospitals' financial performance, a comparative analysis of rural hospital performance from 1980 to 1986, projections of that performance through the next 10 years, a determination of the factors that have caused changes in rural hospitals' performance, and assistance in the development of options for revising the payment of rural hospitals, if necessary.

Status: The report for the first year has been completed. The key findings are:

- Today's problems of rural hospitals are not new; declining occupancy rates and reduced patient revenues, constrained resources for capital financing, rapid technological change and increasingly complex medical services, and shortages of health professionals all have been pointed to as reasons for the problems of rural hospitals since the 1970's.
- Under the prospective payment system (PPS), inpatient utilization trends have played a major role in determining the performance of both urban and rural hospitals.
- Volume declines pose a larger problem for rural than for urban hospitals.
- Increases in total cost per discharge were strongly related to discharge declines.

Discharge declines also appear to have contributed directly to hospital closures in the post-PPS period. Closures of both rural and urban hospitals are concentrated among hospitals with fewer than 50 beds. The majority of rural hospitals that closed were located in counties with other acute care hospitals. Rural closures are disproportionately investor-owned.

Data for Hospital Cost Monitoring and Analysis of Hospital Costs

Project No.:	500-87-0039
Period:	January 1987-December 1991
Funding:	$ 551,900
Award:	Contract
Contractor:	American Hospital Association 840 North Lake Shore Drive Chicago, Ill. 60611
Project Officer:	Kathleen K. Walker Division of Reimbursement and Economic Studies

Description: The Health Care Financing Administration (HCFA) will receive from the American Hospital Association the output from its National Hospital Survey Panel and Annual Survey of Hospitals for fiscal years 1987-91. These data will serve as a prime source of outside data on the performance of hospitals and will be used in HCFA analyses, research, and publications.

Status: Submission of surveys and tapes began in early 1988.

Prospective Capital Payment: Refinements and Impacts

Project No.:	17-C-99232/1-01
Period:	July 1988-July 1990
Funding:	$ 200,000
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Fred G. Thomas Division of Reimbursement and Economic Studies

Description: Congress imposed a moratorium on prospective capital payment as a result of concerns about why some hospitals were projected to be big "losers" under the proposed fiscal year 1988 prospective Medicare capital payment system. This project will examine the proposed policy and will develop and evaluate potential refinements.

Status: This project is in the early developmental stage.

Hospital Occupancy Rates: Impact on Capital Expenditures

Project No.:	99-C-98526/1-05
Period:	May 1988-November 1988
Funding:	$ 62,866
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center
	(See page 66)
Task Leader:	Fred G. Thomas Division of Reimbursement and Economic Studies

Description: The current formula bases Medicare capital payments on the program's share of the hospital's total capacity, as compared with a measure for used or occupied capacity. As a result, Medicare hospital capital payment can increase even when the number of hospital admissions decreases. This project will examine the financial impact on hospitals and the Medicare Trust Fund of developing allowable occupancy thresholds that allow Medicare payment to be based on hospital capacity. The project will limit its examination on occupancy rates to inpatient hospital care.

Status: The preliminary report was received in October 1988 and the final report is scheduled to be completed early 1989.

Hospital Capital Construction Cost Index

Project No.:	99-C-98526/1-05
Period:	May 1988-November 1988
Funding:	$ 47,777
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center
	(See page 66)
Task Leader:	Fred G. Thomas Division of Reimbursement and Economic Studies

Description: The objective of this project is to develop and refine alternative geographic construction cost indexes. These indexes will be evaluated in the light of the attributes of a desirable cost index. These attributes include: face validity, reliability, and the cost of a uniform mix of construction across different areas. A final report will be prepared describing the development and construction of the indexes and how they can be used.

Status: The preliminary report was received in September 1988 and the final report is expected Winter 1988.

Rural Hospital Payment Options

Rural Secondary Specialty Center Demonstration Project

Project No.:	95-P-99142/5-01
Period:	October 1986-September 1989
Award:	Grant
Grantee:	Lake Region Hospital and Nursing Home 712 South Cascade Fergus Falls, Minn. 56537
Project Officer:	Victor G. McVicker Division of Hospital Experimentation

Description: This project is to test the use of a new classification of rural hospitals to be called Rural Secondary Specialty Centers. This group of hospitals would be classified apart from regional referral centers and sole community provider hospitals. The hospitals meeting the criteria for inclusion in this new classification would be reimbursed in the same manner as regional referral centers. Under this 3-year project, Lake Region Hospital would be treated as a Rural Secondary Specialty Center (i.e., its payments would be the same as a regional referral center). The purpose of the demonstration project is to determine the effect of this modified payment system on Medicare Part A expenditures and the access of Medicare beneficiaries who reside in the area to Medicare-covered services.

Status: The demonstration project was implemented effective October 1, 1986. A contract has been awarded to Mathematica Policy Research to conduct an evaluation of this project.

Rural Secondary Specialty Center Demonstration Evaluation

Project No.:	500-87-0028-6
Period:	September 1987-June 1989
Funding:	$ 144,164
Award:	Technical Support: Evaluation of Demonstrations
	(See page 67)
Contractor:	Mathematica Policy Research P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	Victor G. McVicker Division of Hospital Experimentation

Description: The contractor, Mathematica Policy Research (MPR), is conducting the evaluation of the rural secondary specialty center demonstration. The specific evaluation tasks to be undertaken are:

- Identifying the number of rural hospitals across the country that would meet the proposed criteria for a rural secondary specialty center and the dollar impact of paying them at the higher urban rate.
- Determining the potential impact on Medicare programmatic outlays for the potential closing or restriction of services at the Lake Region Hospital and Nursing Home.
- Assessing the impact of the demonstration on the access of Medicare beneficiaries located in rural areas to quality health care.
- Comparing the severity of discharges at Lake Region Hospital with groups of discharges from urban and rural hospitals.
- Assessing the impact of the demonstration on the hospital's profitability and the subsidy of non-Medicare patients.

Status: MPR's final evaluation design was approved. MPR will begin writing a draft final evaluation report in October 1988. This report is expected Spring 1989.

Medical Assistance Facility Demonstration Project

Project No.:	95-C-99292/8-01
Period:	June 1988-June 1992
Funding:	$ 100,000
Award:	Cooperative Agreement
Awardee:	Montana Hospital Research and Education Foundation P.O. Box 5119 Helena, Mont. 59604
Project Officer:	Victor G. McVicker Division of Hospital Experimentation

Description: The Montana Hospital Research and Education Foundation (MHREF) will be conducting a demonstration of the utility and desirability of medical assistance facilities (MAF's) as a new type of frontier health care facility. The Montana legislature recently created the MAF, which is a new category of licensure for health care facilities providing low-intensity acute care services to short-term inpatients. MAF's provide small frontier hospitals with a downsizing option that is currently not available. MAF's are intended to maintain frontier accessibility to basic acute and emergency care services. The goals of the program are to assist five small frontier hospitals to plan on whether or not to downsize; and to evaluate the utilization, cost, patient and provider satisfaction, and quality of services of the institutions that opt for MAF status.

Status: MHREF was awarded $100,000 in the first year to develop and conduct a feasibility study. The University of Minnesota Research Policy Center is also providing assistance to MHREF.

Review of Montana Medical Assistance Facility Demonstration Project

Project No.:	99-C-99169/5-01
Period:	August 1988-July 1989
Funding:	$ 54,883
Award:	Cooperative Agreement
Awardee:	University of Minnesota Research Center (See page 67)
Task Leader:	Victor G. McVicker Division of Hospital Experimentation

Description: Under this project, the University of Minnesota will provide support and analysis for a demonstration being conducted by the Montana Hospital Research and Education Foundation involving a new type of health care facility called the medical assistance facility (MAF). In replacing five small hospitals, the MAF's will provide inpatient care for up to 96 hours, or care needed prior to the transfer of a patient to a hospital. The purpose of the demonstration will be to compare MAF's with hospitals to evaluate the quality of service, cost of service, and profitability of these institutions under the prospective payment system. The University of Minnesota's support will include preparing a paper describing the policy issues associated with MAF's, designing the evaluation for the demonstration, and preparing a paper that discusses alternative approaches to quality assurance in MAF's.

Status: This project is in the early developmental stage.

Examination of Excluded Hospital Payment Methodologies

Children's Hospital Case-Mix Classification System Project

Project No.:	95-C-98570/3-03
Period:	July 1984-December 1987
Funding:	$ 395,000
Award:	Cooperative Agreement
Awardee:	National Association of Children's Hospitals and Related Institutions 325 First Street Alexandria, Va. 22314
Project Officer:	John C. Langenbrunner Division of Reimbursement and Economic Studies

Description: This study had three objectives. The first objective was to evaluate the extent to which diagnosis-related groups (DRG's) define homogenous groupings of pediatric patients across different hospital settings, including children's hospitals. The second objective was to evaluate the extent to which other case-mix classification systems define homogenous groupings of pediatric patients across different hospital settings, including children's hospitals, and based on the strengths and weaknesses of the various systems, to develop a refined pediatric classification system. Alternative classification systems to be considered are disease staging, severity of illness, patient management categories, and pediatric diagnostic system—a system under initial development by five California children's hospitals. The third objective was to verify or modify the refined pediatric classification system based on detailed cost information and to evaluate the manner and extent to which the refined pediatric classification system can best be incorporated into prospective payment for pediatric discharges.

Status: This study was awarded because of the Health Care Financing Administration's interest in pediatric case-mix classification issues in the policy context of the prospective payment system. Findings from the first phase of the study established that:

- Children's hospitals are similar in case mix and resource intensity to university teaching hospitals with pediatric residencies.
- Children's hospitals and pediatric residencies treat a broader mix of pediatric conditions.
- Children's hospitals and residencies treat certain childhood conditions no more, and perhaps less, expensively than community hospitals.

- Children's hospitals and residencies treat virtually all of certain high-cost pediatric conditions, such as cardiac surgery.

The second phase developed a revised children's classification system—children's DRG's which redefined certain DRG's and split other DRG's, resulting in 73 additional groups; this revised classification system is applicable to pediatric hospital care delivered in children's, university, and community hospitals. The topic of including children's hospitals into the current DRG's is part of the Report to Congress (mandated by Public Law 98-21) entitled, "Developing a Prospective Payment System for Excluded Hospitals." This report is available from the U.S. Government Printing Office, stock number 017-060-00209-3.

Developing and Evaluating Options for Pediatric Prospective Payment Systems

Project No.:	18-P-99093/1-01
Period:	June 1987-December 1989
Funding:	$ 275,000
Award:	Cooperative Agreement
Awardee:	Boston University Hospital Health Care Research Unit 75 Last Newton Street Boston, Mass. 02118
Project Officer:	John T. Petrie Division of Reimbursement and Economic Studies

Description: This study seeks to evaluate the revised children's diagnosis-related groups (CDRG's) developed by the National Association of Children's Hospitals and Related Institutions under an earlier cooperative agreement. In addition, this study will develop the adjustments (e.g., teaching hospitals) to a prospective payment system (PPS) that might be required for Medicare or State Medicaid programs to implement a PPS for pediatric hospital services. The work under this project will extend early evaluation of CDRG's to additional State data bases with birthweight and, under a subcontract with the National Perinatal Information Center at the Women and Infant's Hospital in Providence, Rhode Island, to a national data base to which ventilator time will also be appended. The project substantially expands the research funds for analysis of the equity of proposed PPS options for tertiary hospitals and for hospitals treating a large share of Medicaid children. At its completion, the study will formulate PPS options for consideration by Medicare and State Medicaid programs.

Status: Data files and the CDRG grouper software continue to be developed for analytic work under this project.

Case-Mix Studies

Diagnostic Mix, Illness Severity, and Costs in Teaching and Nonteaching Hospitals

Project No.:	15-C-98835/1-02
Period:	September 1985-September 1988
Funding:	$ 558,188
Award:	Cooperative Agreement
Awardee:	Boston University Hospital Health Care Research Unit 75 East Newton Street Boston, Mass. 02118
Project Officer:	Fred G. Thomas Division of Reimbursement and Economic Studies

Description: This project will investigate the relationship between case mix and costs in teaching and nonteaching hospitals. It will address two major questions with important policy implications:

- Are there significant, systematic differences between teaching and nonteaching hospitals in the complexity of diagnoses and severity of illness within diagnosis-related groups?
- Once one has controlled for diagnostic complexity and illness severity, how much cost differential remains between teaching and nonteaching hospitals?

The analyses will be based upon the results of 4,500 indepth chart reviews at 15 metropolitan Boston hospitals (5 major teaching, 5 minor teaching, and 5 nonteaching institutions). The study will review cases in 8 DRG clusters, representing common diagnoses in all 15 hospitals. Each DRG cluster has its own medical record abstraction form, designed by Boston University physicians and their clinical consultants. The forms incorporate the acute physiology and chronic health evaluation severity measurement tool as well as diagnosis-specific elements taken from the clinical and case-mix literature. Per-case costs will be obtained from each hospital's fiscal year 1985 case mix and charge tapes submitted annually by legal mandate to the Commonwealth of Massachusetts Ratesetting Commission.

Status: A final report is expected January 1989.

Analysis of Case-Mix Growth Among Hospitals

Project No.:	99-C-98489/9-05
Period:	May 1988-May 1989
Funding:	$ 263,856 (Prospective Payment Assessment Commission's share of funding is $100,000)
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Timothy F. Greene Division of Reimbursement and Economic Studies

Description: The case mix index (CMI) measures the relative costliness of a group of Medicare patients. Theoretically, increases in the CMI can be separated into "real" increases and coding changes. Real increases are caused by increases in the severity of illness in the patient population or by changes in the treatment patients receive. This study is intended to separately measure changes in the CMI resulting from

real and coding changes. SysteMetrics/McGraw Hill, as a subcontractor to the project, will abstract a representative sample of Medicare hospital discharges for this analysis.

Status: Rand's activities have included designing the sample of cases to be selected for the study, acquiring the data, and conducting analysis. A draft report is expected January 1989.

Other Studies

Rochester Area Hospitals' Corporation

Project No.:	95-P-97501/2-02
Period:	January 1980-December 1987
Award:	Grant
Grantees:	State of New York/Rochester Area Hospitals' Corporation Empire State Plaza Tower Building Albany, N.Y. 12237
Project Officer:	Victor G. McVicker Division of Hospital Experimentation

Description: The Rochester Area Hospitals' Corporation (RAHC) Hospital Experimental Payment (HEP) program is a test of whether an areawide budget system will be effective in controlling hospital costs in a metropolitan area and whether local decisionmaking can effectively allocate financial resources between hospitals to cover the cost of new services. This 8-year project, which includes all third-party payers (Medicare, Medicaid, and Blue Cross of Rochester), was initiated January 1, 1980, and includes nine hospitals in the Rochester area of New York. HEP places an upper limit or cap on the total revenue paid to the community's hospitals for all patient care. Each participating hospital's revenue for 8 years is guaranteed at a base level, calculated primarily from the hospital's 1978 costs and trended forward to reflect inflation. In addition, a 2-percent contingency fund is administered by RAHC to pay for increased hospital services and new and improved medical technology and to provide working capital for participating hospitals.

Status: This project terminated on December 31, 1987. A final report has been received and is being reviewed.

National Hospital Ratesetting Study

Project No.:	500-78-0036
Period:	August 1978-October 1987
Funding:	$ 6,345,601
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Victor G. McVicker Division of Hospital Experimentation

Description: This is the evaluation of the impact of 15 hospital prospective reimbursement programs. The study focuses on the following eight areas:

- Hospital revenue, expenditures, and financial viability.
- Volume of hospital services.
- Hospital payroll costs and staffing.
- Patient care.
- Hospital capital formation, competition, and industrial structure.
- Hospital organization and administrative behavior.
- Access to hospital services.
- Medicare hospital and nonhospital costs.

The majority of the above studies cover the period 1970-79. In addition, updates on program impacts in more recent years in the areas of volume of services and payroll and staffing (up to 1981) and patient care and revenue and expenditures (up to 1983) will be available.

Status: Final reports covering the following areas are available through the National Technical Information Service:

- "The Impact of State Hospital Prospective Reimbursement Programs on Medicare Hospital and Non-hospital Costs," accession number PB84-181544.
- "The Impact of State Hospital Prospective Reimbursement Programs on Hospital Capital Formation, Competition, and Industrial Structure: An Evaluation," accession number PB84-181445.
- "The Impact of Prospective Reimbursement on Hospital Payroll Costs and Staffing," accession number PB84-181403.
- "Effects of Prospective Payment Programs on Access to Health Services," accession number PB88-119722/AS.
- "Comparative Trends in Hospital Expenses, Finances, Utilization, and Inputs Over the 1970-1981 Period," accession numbers PB88-137708/AS and PB88-137716/AS.
- "Effects of Prospective Reimbursement Programs on Patient Care," accession number PB88-218201.
- "Effects of Prospective Reimbursement Programs on Hospital Revenue, Expense, and Financial Status," accession number PB89-101232.

The contract terminated. A final report covering the entire contract has been received and is being reviewed.

Hospital Closure Data Set

Project No.:	HCFA-88-0965
Period:	June 1988-December 1988
Funding:	$ 24,672
Award:	Purchase Order
Awardee:	University of Illinois at Chicago Center for Health Services Research Box 6998 Chicago, Ill. 60680
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: This project's purpose is to update a computerized data file containing a comprehensive list

of all hospitals that closed in the United States during 1980 to 1987. The file will contain key descriptive characteristics of each hospital. Some preliminary descriptive analysis concerning the file will be conducted.

Status: Data-gathering activities aimed at updating the hospital closure file were begun during the Summer of 1988.

Utilization Effects of Rural Hospital Closures

Project No.:	HCFA-88-0966
Period:	June 1988-December 1988
Funding:	$ 24,672
Award:	Purchase Order
Awardee:	The Johns Hopkins University School of Hygiene and Public Health 624 North Broadway Baltimore, Md. 21205
Project Officer:	Philip G. Cotterill Division of Reimbursement and Economic Studies

Description: The purpose of this project is to conduct a preliminary analysis of the effects of rural hospital closures on health services utilization by Medicare enrollees. The analysis will compare trends in utilization by three groups of enrollees: those living in rural counties in which a hospital has closed during the period from 1980 to 1986, those living in rural counties contiguous to those in which a hospital has closed during the study period, and those living in a selected comparison group of other rural counties.

Status: Assembly of the data base for the study was begun Summer 1988.

Program Efficiencies, Analyses, and Refinements

Durable Medical Equipment Services

Durable Medical Equipment

Project No.:	99-C-98489/9-05
Period:	May 1987-December 1988
Funding:	$ 48,205
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Thomas A. Noplock Division of Hospital Experimentation

Description: Durable medical equipment (DME) is paid under Part B of the Medicare program and is subject to customary, prevailing, and reasonable payment procedures. This project is aimed at analyzing Medicare payment for high-cost DME items variations within and across carrier markets.

Status: Completion of this project has been delayed because of the problems encountered in linking the 1985 Part B Medicare Annual Data (BMAD) procedure file with the prevailing charge file. The Health Care Financing Administration and Rand are studying the possibility of using the 1986 BMAD data files as a means of completing the project.

Evaluation of Medicare Expenditures for Durable Medical Equipment

Project No.:	17-C-99215/1-01
Period:	July 1988-July 1989
Funding:	$ 152,143
Award:	Cooperative Agreement
Awardee:	Center for Health Economics Research 75 Second Avenue, Suite 100 Needham, Mass. 02194
Project Officer:	Thomas A. Noplock Division of Hospital Experimentation

Description: The research being conducted is intended to provide the Health Care Financing Administration with information on whether Medicare is paying fair market rates for durable medical equipment (DME); that is, whether Medicare reimbursements are above competitive prices. Little is known about how Medicare carriers have implemented DME reimbursement policies, the effects of these policies on DME reimbursement, geographic variation in DME expenditures and utilization, and rental rates for return of DME. This project is designed to study and address these issues.

Status: This project is in the early developmental stage.

End Stage Renal Disease

Comparative Analysis of the Cost and Outcomes of Kidney Transplants

Project No.:	14-C-98564/0-03
Period:	July 1984-December 1988
Funding:	$ 1,171,684
Award:	Cooperative Agreement
Awardee:	Battelle Human Affairs Research Center 4000 NW., 41st Street Seattle, Wash. 98105
Project Officer:	Paul W. Eggers Division of Beneficiary Studies

Description: This is a multicenter observational study of the impact of cyclosporine on renal transplantation. A sample of 396 patients contributed by five major centers experienced in the use of cyclosporine is being studied indepth. Detailed information on outcomes (mortality, complications, and disability) and costs were collected on this sample and analyzed in terms of major prognostic factors. In addition, extensive data of a medical or biologic and of a sociologic nature have been obtained. The representativeness of the sample has been validated by comparison with the universe of patients treated with cyclosporine for whom more limited information is available in the Health Care Financing Administration Medical Information System data base.

Status: A collaboration with the scientific studies committee of the American Society of Transplant Surgeons was formalized, and a working group of physicians to advise and guide the biomedical component of the study was empaneled and has met twice. The supplementary questionnaires designed to gather medical data were drafted and finalized after review by the medical working group. Patient selection criteria have been finalized. Participating transplant centers have been selected, and subcontracts for data acquisition have been negotiated. The second year of the project was devoted largely to data collection. Five transplant centers agreed to participate in the study: University of California, San Francisco; Ohio State University; University of Pittsburgh; University of Texas, Houston; and University of Wisconsin. Data collection was completed by December 1987. A final report is expected January 1989.

Waiver for the Northwest Kidney Center, Seattle, to be Reimbursed Directly for Providing Home Dialysis Training Services

Project No.:	95-C-98485/0-03
Period:	November 1984-October 1987
Funding:	Waiver Only
Award:	Cooperative Agreement
Awardee:	Northwest Kidney Center 700 Broadway Seattle, Wash. 98122
Project Officer:	Bonnie M. Edington Division of Health Systems and Special Studies

Description: The Northwest Kidney Center (NKC) conducted a pilot test of a regionalized home dialysis training program to test the feasibility of Seattle-based NKC staff providing home hemodialysis training services to patients onsite at dialysis facilities and homes elsewhere in Washington State. The purpose was to enable larger numbers of patients to choose home dialysis.

Status: Over a 3-year period, 32 patients were trained for home dialysis at 3 facilities remote from Seattle. No patients were positive for hepatitis; therefore, none were trained at home. Almost all patients utilized a paid helper rather than a family member. Additional costs associated with sending staff from Seattle to do training at remote sites averaged $516 per patient for initial training, and $383 for retraining. The proportion of dialysis patients who chose home dialysis did not increase over the 3 years but actually decreased.

Severity of Illness in End Stage Renal Disease Population in Northern Florida

Project No.:	14-C-98696/4-02
Period:	September 1984-December 1988
Funding:	$ 509,356
Award:	Cooperative Agreement
Awardee:	University of Florida Grinter Hall Gainesville, Fla. 32610
Project Officer:	Paul W. Eggers Division of Beneficiary Studies

Description: The purpose of this study is to develop and test measures of severity of illness that predict resource consumption levels in the end stage renal disease (ESRD) program. These measures will be based on the acute physiology and chronic health evaluation (APACHE) system, which was developed to measure therapeutic effort and resource costs in intensive care units. Two components of APACHE, the therapeutic intervention scoring system (TISS) and the acute physiology score (APS), will be adapted to the special characteristics of the ESRD patient receiving dialysis. TISS and APS will then be used to measure ESRD case mix and resource consumption.

Status: The major activity of the first year of this study involved the development of an instrument to measure severity of illness variations in the chronic hemodialysis population. The instrument includes: physiologic measures, dialysis treatment variations, measures of comorbidities, as well as socioeconomic and behavioral factors. Final revisions to the instrument were made in June 1985, based on comments from a technical advisory panel and reviews of patients' charts in ESRD facilities to determine data availability. Seven hemodialysis units have agreed to participate in the study. The number of patients included in the study was 527,240 persons from free-standing dialysis facilities and 287 persons from hospital-based facilities. Data collection began in Fall 1985. Second-year activities mainly involved data collection. The final phase of the project involves developing scaling and weighting indices for both patient severity and resource consumption. A final report is expected December 1988.

End Stage Renal Disease Nutritional Therapy Study

Period:	September 1984-August 1994
Award:	Interagency Agreement
Agency:	National Institutes of Health National Institute of Diabetes and Digestive and Kidney Disease Bethesda, Md. 20892
Project Officer:	Arne H. Anderson Division of Health Systems and Special Studies

Description: In accordance with the congressional mandate (Public Law 96-499), this study, known as the Modification of Diet in Renal Disease Study, is a multicenter cooperative clinical study designed to ascertain whether restriction of dietary protein and phosphorus and/or reduction of blood pressure well below the currently accepted target of 140/90 will reduce the rate of progression of chronic renal disease irrespective of the nature of the primary underlying process. The study is being conducted jointly by the National Institutes of Health and the Health Care Financing Administration (HCFA).

Status: Phase I, the developmental phase, began in September 1984 and concluded in December 1985.

This phase produced a clinical protocol, forms manual, and operation manual. Phase II, a 2-year pilot study, began in January 1986 at nine clinical sites. Phase III, the full-scale clinical study, is scheduled to begin in January 1989 at 15 clinical sites and to run until December 31, 1992. At the conclusion of this phase, HCFA is responsible for conducting the cost-effectiveness component of the study. The following questions will be addressed in the cost analysis to be conducted by HCFA:

- Is nutrition therapy cost effective in the treatment of patients in the study?
- Is nutritional therapy less costly to HCFA than the current payment for dialysis and transplantation?
- Is nutrition therapy under HCFA administratively feasible?
- Can the therapy be effectively managed?

Data Quality Assessment for Cost-Effectiveness Analysis of the Modification of Diet in the Renal Disease Study

Project No.:	99-C-98526/1-05
Period:	May 1987-October 1988
Funding:	$ 50,000
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Bonnie M. Edington Division of Health Systems and Special Studies

Description: This project is to develop two issue papers to assist in planning for the analysis of the Modification of Diet in the Renal Disease (MDRD) study. The MDRD study is congressionally mandated and funded jointly by the Health Care Financing Administration and the National Institutes of Health. It is a clinical trial of the effectiveness of nutritional therapy (primarily protein restriction) on patients with progressive kidney disease, in terms of delaying or obviating the need for dialysis.

Status: The first issue paper entitled, "Benign Moral Hazard: Diet Therapy for Progressive Kidney Failure" was received in June 1988. The second paper entitled, "Assessment of Data Quality in Renal Disease" was received in November 1988.

Relative Effectiveness and Cost of Transplantation and Dialysis in End Stage Renal Disease

Project No.:	14-C-98372/5-04
Period:	September 1983-April 1989
Funding:	$ 1,811,126
Award:	Cooperative Agreement
Awardee:	University of Michigan Department of Epidemiology 109 Observatory Street Ann Arbor, Mich. 48109
Project Officer:	Carl E. Josephson Division of Program Studies

Description: This study will perform a comprehensive assessment of the cost effectiveness of end stage renal disease treatment under different treatment modalities, an assessment of the impact of cyclosporine on transplant success, and a life-table analysis of risk factors for patient and graft survival. The study will use data from the Michigan Kidney Registry, supplemented by survey information and medical record abstractions. Because of the design of the study, it is anticipated that the project will demonstrate the utility of a longitudinal, patient-specific data system for policy decisionmaking at the Federal level.

Status: The awardee has made significant progress in all phases of this project. The basic research design is a phased cohort analysis of renal patients entering treatment modalities over two periods, 1981-83 and 1984-86. Analysis of the data from the second cohort is being performed in the three main research areas: quality of life, survival, and cost effectiveness. Additionally, progress continues in the secondary goals of the research project, such as identifying diabetic etiological factors in end stage renal disease, using the Michigan Kidney Registry data for a variety of research purposes, and studying the relationship between immunosuppressive agents and malignant tumors. The final study report is expected early in 1989.

Cause and Failure to Transplant Cadaveric Human Organs

Project No.:	17-C-98728/1-01
Period:	August 1986-July 1989
Funding:	$ 699,740
Award:	Cooperative Agreement
Awardee:	Brandeis University 415 South Street Waltham, Mass. 02254
Project Officer:	Paul W. Eggers Division of Beneficiary Studies

Description: The project will determine the reasons for the high rate (19.6 percent) of wastage of cadaveric kidneys in the United States and make recommendations to reduce this loss in the future. Many studies have shown that kidney transplantation is beneficial both clinically and from a cost perspective. The major barrier to increased transplantation is organ availability. This study, through its measure of determinants of, and cures for, cadaver organ wastage, could help increase the efficiency of the organ procurement system. A second part of the project, funded by the Public Health Service through an interagency agreement, is an analysis of the status, efficiency, and effectiveness of the organ procurement system in the United States. This part is congressionally mandated under Section 375 of the Public Health Service Act, as added by Public Law 98-507 of the National Organ Transplant Act.

Status: Phase I completed a preliminary analysis of the status of organ procurement in 1986, and the findings have been delivered to the Public Health Service. This includes: descriptive analyses such as size and

volume of activity, donor characteristics, organization structure, personnel, and measures of efficiency. Phase II of the study will entail the tracking of kidneys from harvest through transplantation or inability to place (i.e., wastage). This will enable accurate estimates to be made of true wastage rates. Through the first 3 months of 1988, 637 harvested kidneys were tracked, of which 35 were discarded. The major reasons for loss were anatomical abnormalities, donor/organ pathology, and surgical complications. Data collection will continue through December 1988 at which time it is anticipated that information will be available on 3,000 kidneys with discard information on 230 to 300 kidneys. Phase III will consist of an indepth analysis of six agencies determined to be efficient (in terms of low wastage rates), in order to make recommendations about potential changes that could be made in the organ procurement area.

Predictors of Cost and Success in Kidney and Heart Transplantation

Project No.:	17-C-99183/0-01
Period:	June 1988-June 1990
Funding:	$ 200,000
Award:	Cooperative Agreement
Awardee:	Battelle Human Affairs Research Centers 4000 NE. 41st Street Seattle, Wash. 98105
Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: This project will examine the patient and organizational characteristics that determine successful kidney and heart transplantation outcomes. Using multivariate life-table methods, data from the Medicare program will be combined with information from surveys of transplant facilities to construct a model of transplant facility effectiveness.

Status: Data preparation activities are currently under way. Publicity materials are being developed for distribution to transplant centers. Forms for primary data collection are being drafted, and secondary data tapes have been requested.

Impact of Payment Changes on Medicare: Case of End Stage Renal Disease

Project No.:	17-C-99021/3-01
Period:	June 1987-June 1989
Funding:	$ 500,000
Award:	Cooperative Agreement
Awardee:	The Urban Institute Health Policy Center 2100 M Street, NW. Washington, D.C. 20037
Project Officer:	Samuel McNeill Division of Program Studies

Description: This project is part of an ongoing effort to monitor several components of Medicare's end stage renal disease (ESRD) program. The major thrust of this project will be to measure the impact of two recent reductions in the composite payment rate on access to and quality of care provided to ESRD patients. Information for this study will be derived from summaries of medical care records and other supplementary sources for past patients in both hospital-based and freestanding dialysis centers. The initial effort will concentrate on an assessment of the impact of the $12 reduction of the composite rate in 1983. This will include analysis of morbidity and mortality associated with ESRD in concert with the study mandated by Congress. This aspect was specified in Section 9335(b)(2) of the Omnibus Budget Reconciliation Act of 1986. As soon as the data becomes available, the same protocol will be followed to measure the impact of the additional $2 composite rate reduction instituted in 1986. Another issue under study in this project is the impact of dialyzer reuse on patient mortality, morbidity, and kidney transplantation, which is part of the Health Care Financing Administration's ongoing interest in measuring and tracking ESRD patient outcomes.

Status: An interim Report to Congress has been received and is being reviewed. The final report is expected to be completed by Summer 1989.

Estimating Cost of Training for Self-Dialysis

Project No.:	99-C-98526/1-05
Period:	August 1988-March 1989
Funding:	$ 34,000
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Carl E. Josephson Division of Program Studies

Description: The project's objective is to develop a plan of analysis to estimate the cost of training end stage renal disease patients in performing self-dialysis. The basic approach will use an estimation of cost functions using the cost data supplied to the Health Care Financing Administration (HCFA) as part of the annual cost report. Other data under consideration include those from the Medicaid Management Information Systems and claims information made available to HCFA researchers.

Status: The project is in the early developmental stage.

End Stage Renal Disease Annual Research Report

Funding:	Intramural
Project Director:	Paul W. Eggers Division of Beneficiary Studies

Description: This report reflects a wide range of data and analyses regarding the end stage renal disease (ESRD) program. Much of the data in this report emphasize trends and comparisons over time, making this report a standard reference source which illustrates changes in the nature of the Medicare end stage renal

disease population and in the pattern of treatment of this population. The chapters include: information on incidence of new enrollees and program enrollment from the Health Care Financing Administration (HCFA) ESRD program management and information system, patient treatment trends from the annual facility survey, survival analyses for dialysis and transplant patients, reimbursement trends, characteristics of providers of renal care, and summaries of HCFA grant activities in the ESRD area.

Status: This report has been published for the years 1984 and 1985:

- *"Health Care Financing Research Report: End-stage renal disease, 1984."* HCFA Pub. No. 03221, July 1986.
- *"Health Care Financing Research Report: End-stage renal disease, 1985."* HCFA Pub. No. 03274, September 1987.

The 1986 report has been completed and is in the process of being printed. The 1987 report is being prepared.

Data Development

Medicaid Tape-to-Tape: Data and Analysis

Project No.:	500-84-0037
Period:	June 1984-December 1987
Funding:	$ 2,727,056
Award:	Contract
Contractor:	SysteMetrics, Inc. 104 West Anapamu Street Santa Barbara, Calif. 93101
Project Officers:	David K. Baugh and Penelope L. Pine Division of Program Studies

Description: This project continues the development and implementation of a Medicaid person-level data set from five State Medicaid Management Information Systems (MMIS) (California, Georgia, Michigan, New York, and Tennessee). The project acquired data on enrollment, claims, and providers for 1983 and 1984. These data have been used to create uniform files, provide descriptive reports, support analysis and evaluation, and develop the methodology for online data analysis at a personal computer. This project provides a continuum of 5 years of uniform Medicaid data that have been used to conduct Medicaid research, analyze program management, evaluate policy alternatives, provide feedback to States in the area of Medicaid financing, and produce congressionally mandated studies.

Status: Person-level enrollment, claims, and provider data have been obtained from State MMIS. The data have been processed to create uniform data sets for the participating States. New early return tabulations have been designed to present data on mortality and diagnoses. Research will be published soon on a number of special topics including: elderly nursing home recipients, surgical outcomes, ambulatory episodes of care, longitudinal patterns of Medicaid enrollment and expenditures, and high cost Medicaid recipients. The following reports have been published:

- "Initial Findings from the Medicaid Tape-to-Tape Project: New York, 1981," Health Care Financing Administration, Office of Research and Demonstrations, Working Paper 87-2, April 1987.
- "Findings from the Medicaid Tape-to-Tape Project: Michigan 1981-1983," Health Care Financing Administration, Office of Research and Demonstrations, Working Paper 88-3, August 1988.
- "Recipients of covered services among Medicaid enrollees: Michigan and New York, 1981," *Health Care Financing Notes*, No. 3, Health Care Financing Administration, Office of Research and Demonstrations, December 1984.
- "Medicaid: Use and cost of medical care by institutionalized recipients, New York and Michigan, 1982," *Health Care Financing Notes*, No. 7, Health Care Financing Administration, Office of Research and Demonstrations, September 1987.
- "Hospital utilization and expenditures for Medicaid enrollees by major diagnosis group," *Health Care Financing Review*, Vol. 9, No. 1, HCFA Pub. No. 03240, Fall 1987.
- "On-line data access—The Medicaid workstation," *Proceedings of the 1985 Public Health Conference on Records and Statistics*, Public Health Service, National Center for Health Statistics, DHHS Pub. No. (PHS) 86-1214, December 1985.
- "The Medicaid Tape-to-Tape project," *Proceedings: 25th National Workshop on Welfare Research and Statistics*, Family Support Administration, Office of Family Assistance, SSA Pub. No. 80-80811, May 1986.
- "The Medicaid Tape-to-Tape project: Empirical uses of a uniform data base," *Proceedings of the Ninth Annual Symposium on Computer Applications in Medical Care*, IEEE Computer Society, November 1985.
- "Impact of growing numbers of the very old on Medicaid expenditures for nursing homes: A multistate, population-based analysis," *The American Journal of Public Health*, Vol. 77, No. 6, June 1987.
- "Interstate variation in elderly Medicaid nursing home populations: Comparisons of resident characteristics and medical care utilization," *Medical Care*, Vol. 25, No. 8, August 1987.
- "Psychotropic drug use and the risk of hip fracture," *The New England Journal of Medicine*, Vol. 316, No. 7, February 12, 1987.
- "Medicaid recipients in intermediate care facilities for the mentally retarded," *Health Care Financing Review*, Vol. 8, No. 3, HCFA Pub. No. 03237, Spring 1987.
- "Children and Medicaid: The experience in four States," *Health Care Financing Review*, Vol. 9, No. 1, HCFA Pub. No. 03240, Fall 1987.
- "Report to Congress: Implementation and Analysis of Public Law 98-460—Section 1619 (The Social Security Disability Benefits Reform Act of 1984)," Social Security Administration, Office of Programs

and Policy, Office of Supplemental Security Income, July 1986.
- "Medicaid use and expenditures for the disabled under a work incentive program," *Health Care Financing Review*, Vol. 9, No. 3, HCFA Pub. No. 03263, Spring 1988.
- "Refugee Medical Assistance Study: Final Report," Office of Refugee Resettlement, U.S. Department of Health and Human Services, October 1985.

Medicaid Tape-to-Tape: Research Data and Analysis

Project No.:	500-86-0016
Period:	March 1986-March 1990
Funding:	$ 5,141,406
Award:	Contract
Contractor:	SysteMetrics, Inc. 104 West Anapamu Street Santa Barbara, Calif. 93101
Project Officers:	Penelope L. Pine and David K. Baugh Division of Program Studies

Description: This project continues the development and implementation of a Medicaid person-level data set from five State Medicaid Management Information Systems (MMIS) (California, Georgia, Michigan, New York, and Tennessee). This effort will acquire data on enrollment, claims, and providers for 1985-88. These data will be used to create uniform files, provide descriptive reports, support analysis and evaluation, and develop methodology for online data base management. This project will provide a continuum of 9 years of uniform Medicaid data for the conduct of analysis of program management, evaluation of policy alternatives, and feedback to States in the area of Medicaid financing.

Status: Currently, project staff are acquiring and processing person-level enrollment, claims, and provider data that have been obtained from State MMIS. Project staff are also linking the data base to other kinds of health statistics to expand the uses of the data. The project will continue to produce early return tabulations that summarize enrollment, utilization, and expenditures data for each year and each participating State. Research is under way on a series of special topics including: capitation in Medicaid, spend down and its relationship to nursing home entry, the chronically mentally ill, hip fractures among the elderly, the Medicaid disabled population, obstetrical services, physician volume, acquired immunodeficiency syndrome, and Medicaid providers.

High Volume and High Payment Procedures in the Medicaid Population

Project No.:	500-86-0016
Period:	December 1987-October 1988
Funding:	$ 65,963
Award:	Contract
Awardees:	SysteMetrics/McGraw Hill 104 West Anapamu Street Santa Barbara, Calif. 93101 (See page 67)
Project Officer:	Thomas W. Reilly Division of Program Studies

Description: Section 9432(b) of the Omnibus Budget Reconciliation Act of 1986 (Public Law 99-509) mandated that the Department of Health and Human Services provide information to Congress relating to second surgical opinion and inpatient hospital preadmission review programs in Medicaid, especially focusing on identifying surgical procedures that are high in volume or cost. A report has been prepared that includes: information such as payment rates, aggregate annual payments, and rates of performance for surgical procedures performed on the Medicaid population in a sample of States; discussion of the extent to which second opinion programs may impede access to necessary care, and the measures States have taken to address such potential impediments; information on surgical procedures that may be appropriate for a mandatory second surgical opinion program under Medicaid, considering factors about the procedures such as volume, cost, and nonconfirmation rates. Note that Project Hope and the Rand Corporation contributed significant parts of the project. Project Hope was funded by non-HCFA sources and Rand's contribution is described in the policy research center projects.

Status: A draft of the report is currently being reviewed.

Background Papers for the Omnibus Budget Reconciliation Act of 1986 Report to Congress on High Volume, High Cost Procedures

Project No.:	99-C-98489/9-05
Period:	May 1987-September 1988
Funding:	$ 89,904
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Thomas W. Reilly Division of Program Studies

Description: The purpose of this project is for Rand to provide background and context for a congressionally mandated study identified in Section 9432(b) of the Omnibus Budget Reconciliation Act of 1986. This study involved the preparation of a report on second surgical opinion and preadmission review programs in Medicaid.

Status: The project is near completion. The Report to Congress has been prepared and is being reviewed. In support of this effort, Rand completed two reports entitled, "1987 Medicaid Agency Survey Results: Second Surgical Opinion Programs and Inpatient Hospital Preadmission Review Program" (WD-3820-HCFA) and "Second Surgical Opinion Programs: A Review of the Literature" (WD-3819-HCFA). Rand also reported to the Health Care Financing Administration on high volume, high cost procedures in the Medicaid program and variation in utilization of medical services by Medicaid recipients.

National Academy of Sciences Panel on Statistics for an Aging Population

Project No.:	IAA-84-P432
Period:	December 1984-December 1986
Funding:	$ 102,000
Award:	Interagency Agreement
Agency:	National Research Council Committee on National Statistics 2101 Constitution Avenue Washington, D.C. 20418
Project Officer:	James D. Lubitz Division of Beneficiary Studies

Description: The purpose of this study is to examine the adequacy of current statistical information and methodology, particularly in the area of health and medical care, for an aging population. The study is being conducted through the Committee on National Statistics of the National Academy of Sciences' National Research Council and is being supported by several Government agencies, including the Health Care Financing Administration, National Institute of Mental Health, National Institute on Aging, National Center for Health Statistics, and Veterans Administration. The study will determine:

- Whether the data that will be needed during the next decade for policy development for health care for an aging population are available.
- Whether available data are analyzed and used.
- Whether changes or refinements are needed in the statistical methodology used in both policy analysis and in the planning and administration of programs.

Status: The final report, "The Aging Population in the Twenty-First Century: Statistics for Health Policy," has been published by the National Academy Press, 2101 Constitution Avenue, Washington, D.C. 20418.

Medicare/Medicaid Program Statistics and Information

Funding:	Intramural
Project Director:	Charles R. Helbing Division of Program Studies

Description: This project is designed to provide Medicare and Medicaid program statistics, information, and analyses to Federal agencies and public or private parties requesting health care data for the eligible populations. The data cover the entire range of program benefits and are of a type not readily available in publications or other sources. The data are used for:

- Preparing statistical and analytical health care reports.
- Monitoring the performance and efficiency of the Medicare and Medicaid programs.
- Evaluating the impact of new and proposed legislation and policy.
- Preparing special studies on the prospective payment system, catastrophic coverage, and other topics.

Status: During the first three quarters of 1988, approximately 200 requests for data were received. Many data requests with significant legislative/policy implications have been completed for Congress, the Health Care Financing Administration, other Federal agencies, universities, research firms, industrial associations, special interest groups, etc. Some of the requests have resulted in further research leading to the publication of *Research Briefs* and *Health Care Financing Review* articles.

Program Statistics Series Reports and Health Care Financing Research Briefs

Funding:	Intramural
Project Directors:	Charles R. Helbing and Martin Ruther Division of Program Studies

Description: These statistical reports, notes, and briefs describe, monitor, measure, and evaluate Medicare program benefits, initiatives, operations, and performance. The annual Medicare benefit reports are mandated by the Social Security Law. Other program reports, notes, and briefs are either mandated by Congress, as background for current legislative policy initiatives, or reflect prevailing health care issues. Beginning 1987, the Medicaid program has become the subject of the same publications series.

Status: The following Health Care Financing Notes and Research Briefs have either been completed or have been sufficiently developed so that usable data are available upon request;

- "Medicare: Use and Cost of Medicaid Services, Fiscal Year 1984-85."
- "Medicare: Use of Specialty Hospitals by Medicare Beneficiaries, 1985."
- "Medicare: Deductible and Coinsurance Amounts Incurred by Beneficiaries Discharged from Short-Stay Hospitals, 1983-84."
- "Use and Cost of Short-Stay Hospital Services Under Medicare as Related to Future Policy and Benefit Reform: Calendar year 1985."
- "Medicare: Inpatient Use of Short-Stay Hospitals, 1985."
- "Use and Cost of Hospital Outpatient Services Under Medicare, 1985."
- "Medicare: Use and Charges for Inpatient Services in Short-Stay Hospitals, by Diagnosis-Related Groups, Calendar Years 1983 and 1985."
- "Medicare: Surgical Procedures in Short-Stay Hospitals, by Census Region, 1983."
- "Medicare: Participating Providers and Suppliers of Services, December 1987."
- "Medicare: Raising the Age of Eligibility for Medicare to Age 67."
- "Medicare: Use and Cost of Skilled Nursing Care Facilities, 1986."
- "Nursing Home Bed Supply and Utilization, 1981-84."
- "Medicare: Use and Cost of Short-Stay Hospital Inpatient Services Under Medicare: Calendar Year 1986."
- "Medicare: Use and Cost of Short-Stay Hospital Services by Beneficiaries with the Principal Diagnosis of Alzheimer's Disease, 1985."

- "Medicare: Liability of Medicare Enrollees Using Physician Services, 1985."
- "Medicare: Use and Cost of Short-Stay Hospital Services by Beneficiaries with the Principal Diagnosis of Cataracts, 1984."
- "Medicare: Use of Home Health Services, 1985."
- "Medicare: Part B Distribution of Beneficiary Liability, 1985."
- "Medicare: Use and Cost of Short-Stay Hospital Services by Beneficiaries with the Principal Diagnosis of Diabetes, 1984."
- "Medicare: Use of Short-Stay Hospital Inpatient Services, by Principal Diagnosis; 1983–84."
- "Medicare: Use and Cost of Home Health Agency Services, 1983–84."
- "Use and Cost of Hospital Outpatient Services Under Medicare, 1985."
- "Medicare: Use and Charges for Inpatient Services in Short-Stay Hospitals, by Diagnosis-Related Groups, Calendar Years 1981 and 1984."
- "Medicare: Use and Cost of Home Health Agency Services, 1986."
- "Use and Cost of Physician and Supplier Services Under Medicare, 1986."

Medicare and Medicaid Data Book

Funding: Intramural
Project Directors: Martin Ruther, Thomas Reilly, Vikki B. Latta, and Cheryl D. Black
Division of Program Studies

Description: This report provides descriptive statistics on the Medicare and Medicaid programs and provides a resource for public officials, researchers, policy analysts, and users and providers of health care. The report includes:

- A brief overview of the Medicare and Medicaid programs and information on the relationships between the programs.
- Trends in the use and cost of Medicare and Medicaid benefits.
- Detailed information and statistics on the Medicare program, including eligibility, benefits, financing, and administration for both the hospital insurance and supplementary medical insurance programs.
- Detailed information and statistics on the Medicaid program, including eligibility criteria, recipient characteristics, benefit coverage, service use, expenditures, financing, and administration.
- Appendices that provide addresses of Medicare intermediaries and carriers, Medicaid State Agencies, medical assistance programs, and the offices in the Health Care Financing Administration responsible for the various facets of the Medicare and Medicaid programs.

Status: The *Medicare and Medicaid Data Book, 1988* will be available Spring 1989, from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Linkage of Continuous Work History Sample and Continuous Medicare History Sample Files

Funding: Intramural
Project Director: Gerald F. Riley
Division of Beneficiary Studies

Description: Medicare utilization data will be linked to Social Security Administration data on the work histories, including earnings and primary industry of employment, of retired workers. Two studies are contemplated. The first involves an analysis of the use of Medicare services by industry of former employment. It is anticipated that some industries (e.g., coal mining) may be associated with poorer post-retirement health and, therefore, greater use of health services. The second study will examine the use of Medicare services by retirement patterns. For example, do those electing to begin receiving retirement benefits at 62–64 years of age use more health services after turning 65 years of age? The underlying assumption is that retirement decisions are often influenced by health status.

Status: The Continuous Work History Sample and Continuous Medicare History Sample Files have been linked, and data analyses have begun on the relationship between retirement patterns and the use of Medicare services. Data on industry of former employment are being linked with Medicare data now.

The Disease and Cost Impact of Influenza Epidemics on Medicare

Funding: Intramural
Project Officer: Marshall McBean
Division of Beneficiary Studies

Description: Influenza epidemics occur almost every year and result in unnecessary disease, hospitalization, and costs to the Medicare population. The morbidity and costs in a nonepidemic year (1980–81) will be compared with the epidemic years of 1981–82, 1982–83, 1983–84, 1984–85, and 1985–86.

Status: Necessary data have been abstracted from the Health Care Financing Administration data files, and data analysis is taking place.

Patterns and Outcomes of Cancer Care in the Medicare Population

Funding: Intramural
Project Directors: James D. Lubitz and Gerald F. Riley
Division of Beneficiary Studies

Description: More than one-half of all cancer patients have Medicare coverage. This study focuses on Medicare utilization of these patients from time of diagnosis through a data base linking Medicare data with cancer registry data collected through the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program. The SEER program covers about 10 percent of the U.S. population. This data base contains anatomic site of the primary cancer,

histology, stage of the disease at diagnosis, and date of diagnosis for each new case of cancer in the geographic areas covered by the program. The linkage of SEER and Medicare data will provide opportunities for research on issues of access to medical care, the costs of medical care obtained by cancer patients, and patterns of different types of medical care received by cancer patients diagnosed with different sites, stages, and histologies of cancer. Some specific questions to be addressed are:

- What are overall Medicare costs, by type of cancer, and within cancer type, by stage of disease?
- What comorbidities are associated with cancer and how do they influence Medicare use and cost?
- What is the mix of care, on a person basis, between community hospitals, teaching hospitals, and cancer centers?

Status: A notice was published in the *Federal Register* in October 1988 announcing the creation of the system of records. Following a 60-day period for comment, the Medicare and SEER data will be linked. The linkage is expected to be completed by Spring 1989.

Trends and Patterns in Place of Death for Aged Medicare Enrollees

Funding:	Intramural
Project Director:	Alma B. McMillan Division of Beneficiary Studies

Description: This study examines trends and patterns in place of death for aged Medicare enrollees from 1979 through 1986. The analysis will focus on changes in place of death during a pre-prospective payment system (PPS) period (1979 through 1983) and a post-PPS period (1983 through 1986). Changes as measured by percent distributions and deaths per 1,000 enrollees will be analyzed for deaths in hospitals, nursing homes, and patients' homes. Patterns by age, marital status, and geographic location, and selected causes of death will be examined.

Status: Most of the mortality data, which come from the Vital Statistics of the United States, maintained by the National Center for Health Statistics, are on hand, and a draft paper is under way. Preliminary findings indicate that there was a decline in deaths in the inpatient hospital setting after the implementation of the PPS. This decline occurred in all age groups, for all marital status groups, for most of the States, and for deaths from cancer, heart disease, and stroke.

Medicare Data Release of Small Area Rates of Hospitalization, Mortality, and Rehospitalization

Funding:	Intramural
Project Director:	Gerald F. Riley Division of Beneficiary Studies

Description: This data release is a part of efforts by the Health Care Financing Administration (HCFA) to provide the public with information on the use of Medicare-covered services and outcome of treatment and how these vary among different geographic areas. Data are presented by metropolitan statistical areas (MSA's) and by metropolitan and rural counties within States. The data release is organized into three volumes. Volume 1 contains hospitalization rates for 26 specific medical conditions, including those contained in HCFA's annual hospital mortality data release. This volume contains rates of hospitalization as well as mortality rates on both per-discharge and population bases. Population-based mortality rates for these conditions have been obtained from death certificate information gathered by the National Center for Health Statistics. Volume 2 contains the same type of information as Volume 1 for 16 surgical procedures. Volume 2 has no population-based mortality rates because these are not defined for the procedures. Volume 3 contains information on rehospitalizations and specific adverse outcomes following selected procedures. Adverse outcomes will be identified through diagnostic data contained on inpatient hospital claims. Outcome data related to both the initial surgical stay and readmissions will be presented. Adverse outcomes were defined with the help of three specialty panels of surgeons and internists.

Status: The volumes are scheduled to be released in mid-1989.

International Comparative Data and Analyses on Health Care Financing and Delivery Systems

Project No.:	500-88-009
Period:	May 1988-May 1989
Funding:	$ 98,552
Award:	Contract
Contractor:	The Organization for Economic Cooperation and Development 2, rue André-Pascal 75775 Paris CEDEX 16 France
Project Officer:	Charles G. Cowles Division of Reimbursement and Economic Studies

Description: The Organization for Economic Cooperation and Development (OECD) originally consisted of the developed Western European nations plus the United States and Canada. OECD currently comprises 24 countries on four continents. The focus of this project is to develop, update, and refine an internationally comparable data base on health care spending patterns, prices, utilization, and delivery system characteristics in the OECD countries. These data will provide the basis for a series of analytical papers comparing international health systems and international variation in medical practice patterns (e.g., diagnostic-specific utilization of acute-care inpatient facilities). The data will be unique in that the information collected will be made nearly compatible across countries. They will, therefore, provide a contemporary basis for performing comparisons of health care systems on an international scale. The data and papers will be presented in the 1989 Annual Supplement of

the *Health Care Financing Review* and should provide suggestions on how the United States could benefit from the experiences of other OECD countries.

Status: This project is in the early developmental stage.

Noncovered Services

Impact of Psychological Intervention on Health Care Utilization and Cost: A Prospective Study

Project No.:	11-C-98344/9-05
Period:	September 1983-December 1988
Funding:	$ 936,002
Award:	Cooperative Agreement
Awardee:	Hawaii State Department of Social Services and Housing P.O. Box 339 Honolulu, Hawaii 96809
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: The project seeks to determine whether short-term mental health treatment will reduce Medicaid utilization and costs on the island of Oahu, Hawaii. Medicaid eligibles who were in any of three high-risk groups were randomly assigned to experimental or control group status. The three groups are: persons 55 years of age or over; persons in the upper 15 percentile of health care utilizers; and persons with specific illnesses that have psychosomatic components. The experimental group receives: special outreach; short-term mental health treatment from psychologists, including individual, group, or family psychotherapy; biofeedback; and medication.

Status: All clinical services ended June 1987, and 1,449 Medicaid recipients had received the intervention. Data are being analyzed for evaluation of the project. The final report is expected in early 1989.

New Jersey Mobile Intensive Care System

Project No.:	95-P-98352/2-01
Period:	November 1983-October 1987
Award:	Grant
Grantee:	New Jersey State Department of Health CN 363 Trenton, N.J. 08625
Project Officer:	Cynthia K. Mason Division of Hospital Experimentation

Description: The purpose of the Mobile Intensive Care Unit (MICU) demonstration is to test the cost effectiveness of New Jersey's approach to the provision of emergency advanced life-support services. The New Jersey MICU system is a statewide network of medical emergency vehicles that provide onsite advanced life-support services and are staffed by paid paramedics. However, most MICU's are not equipped to transport patients. That function remains the responsibility of volunteer ambulance squads. Therefore, most emergency calls are answered by two vehicles, an MICU and an ambulance. The MICU's, as currently operated, are not covered by traditional Medicare coverage principles.

Status; New Jersey was awarded a 1-year extension of the MICU demonstration waivers in order to determine how to secure permanent funding for advanced life-support services in the State. During the period of the extension, November 1986 through October 1987, the State convened an advisory oversight group, including outside experts, which studied the issue and worked closely with involved parties. The State did reach an agreement with the Health Care Financing Administration for Medicare's participation in the program under traditional Medicare coverage principles. The demonstration terminated, as scheduled, on October 31, 1987. The final report has been received and is being reviewed.

New Jersey Mobile Intensive Care System Demonstration Evaluation

Project No.:	500-87-0029(1)
Period:	June 1987-August 1988
Funding:	$ 199,975
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Contractor:	Lewin and Associates, Inc. Suite 700 1090 Vermont Avenue, N.W. Washington, D.C. 20005
Project Officer:	Thomas A. Noplock Division of Hospital Experimentation

Description: The focus of this study is on the State of New Jersey, which has 32 paramedic programs, termed Mobile Intensive Care Unit (MICU) programs. Of the 32 programs, only two programs transport patients; the remaining 30 programs are nontransport systems. The study consisted of two parts. First, a case study of the New Jersey emergency medical services (EMS) system was conducted and a detailed description of the system was provided to shed light on the operation of nontransport advanced life support systems. The New Jersey EMS system was compared with Medicare-covered EMS systems outside of New Jersey to determine the similarities and differences (other than the mode of transport) between transport and nontransport EMS systems. Second, data were collected on the costs and effectiveness of the New Jersey EMS system and Medicare-covered EMS systems outside of New Jersey. These data are used to compare the costs, effectiveness, and overall cost effectiveness of transport and nontransport paramedic programs. From the study it was determined that the cost of the nontransport paramedic programs would be marginally higher if they became transport programs and that transport paramedic programs and nontransport parmedic programs are about equal in cost effectiveness.

Status: A final report on this study has been submitted by Lewin and Associates, Inc., and accepted by the Health Care Financing Administration.

Evaluation of the Alcoholism Services Demonstration

Project No.:	500-83-0023
Period:	April 1983-December 1988
Funding:	$ 2,644,996
Award:	Contract
Contractor:	Lawrence Johnson and Associates, Inc. 4545 42nd Street, NW. Washington, D.C. 20016
Project Officer:	Arne H. Anderson Division of Health Systems and Special Studies

Description: This is an evaluation of the effectiveness of the demonstration that expanded Medicare and/or Medicaid coverage to freestanding alcoholism treatment centers. It will examine the impact of the demonstration on the use and cost of services. The project is supported by funds from the National Institute on Alcohol Abuse and Alcoholism, Public Health Service, and the Health Care Financing Administration.

Status: The research design was completed in March 1983. The contractor has provided a case study and interim analytical reports on cost and use of services under the demonstration. Prior to exhausting contract resources, the contractor has completed work on design for analytic files and collection of all study data. Plans are being made to complete the evaluation; however, a final report is not expected before December 1989.

Geriatric Continence Evaluation Contract

Project No.:	500-867-0028-8
Period:	October 1987-December 1988
Funding:	$ 125,000
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Awardee:	Mathematica Policy Research Inc. P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	William D. Clark Division of Long-Term Care Experimentation

Description: The contractor, through the subcontractor SysteMetrics, Inc., is evaluating the effectiveness of the Geriatric Continence Research Project as a means to determine the relative value of experimental approaches to geriatric incontinence compared with traditional methods of treatment and care for individuals with this distressing and difficult patient-care problem. The purpose of the evaluation is to determine the cost effectiveness of successful assessment and treatment methods being tested and to assess the applicability of the methods. Policy implications for the use of cost-effective assessment and treatments are to be presented in the context of current reimbursement criteria for incontinent patients. The evaluation should include specific recommendations regarding modifications in Medicaid reimbursement regulations that would incorporate incentives for improved continence goals.The evaluation will be concerned with the following issues:

- Whether specialized staff training on continence and toileting results in increased patient continence at no additional cost.
- Whether the implementation of scheduled toileting procedures results in no greater patient care costs than exist for other institutionalized incontinent patients.
- Whether procedure applications, such as staff management and training methods and behavior modification techniques for continence training, do not result in increased patient-care costs.
- An analysis of assessment measures that would be most applicable for general use in custodial-care institutions.

Status: A final report is expected by December 1988.

Evaluation of the Omnibus Budget Reconciliation Act of 1987 Medicare Payment for Therapeutic Shoes for Individuals with Severe Diabetic Foot Disease Demonstration

Project No.:	500-87-0028-9
Period:	June 1988-June 1991
Funding:	$ 712,752
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Awardee:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	Sherrie L. Fried Division of Health Systems and Special Studies

Description: The demonstration will test the cost effectiveness of furnishing therapeutic shoes to Medicare beneficiaries with severe diabetic foot disease. The project is to be conducted for an initial period of 24 months. If the coverage of shoes is found to be cost effective, the demonstration will terminate, and shoes will become a covered service under Medicare. If the findings are inconclusive, the project will continue for an additional 24 months.

Status: The demonstration is in its planning phase and is expected to be operational in early 1989. A draft demonstration design has been developed, and work is continuing on the operational protocol and data collection plan. Site selection has not been finalized. The contractor has the responsibility for designing, implementing, and evaluating the demonstration. A detailed implementation protocol will be prepared and approved prior to implementation.

Small Business Innovation

QUEST: Quality Assurance Expert System Testbed

Project No.:	500-86-0032
Period:	September 1986-July 1989
Funding:	$ 143,669

Award: Contract
Contractor: Meridian Corporation
4300 King Street, Suite 400
Alexandria, Va. 22302-1508
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project, authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219), is building a prototype expert system, named QUEST—an acronym for quality assurance expert system testbed. This is a personal computer-resident, rule-based expert system to aid in the determination of deficient patient care in hospitals. It uses the definitions of nosocomial infections established by the Centers for Disease Control, Public Health Service. The system is being set up in modules that allow for expansion to additional medical specialties and subspecialities at later stages. The system will have two modes of operation. In the first mode it can be used for periodic reviews of all treatment procedures and identification of patterns of deficient care. The second mode is designed to act as a physician's aid in the administration of patient care. During Phase I the system included only certain treatment regimens and deficiency patterns. In Phase II the system is being expanded, and field tests will be conducted.

Status: Phase I of the project was completed in March 1987. Phase II was funded and should be completed July 1989.

Development of Interactive Software to Assist in Providing Appropriate Care in Intensive Care Units

Project No.: 500-86-0031
Period: September 1986-July 1989
Funding: $ 150,935
Award: Contract
Contractor: L.M.P. Associates
3109 Rollin Road
Chevy Chase, Md. 20815
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project, authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219), is developing an easy-to-use, interactive microcomputer-based system for intensive care units (ICU's). This system will measure and monitor the quality and level of ICU care. It will also evaluate and document the status of individual patients. By the end of Phase I, a system was in place. Phase II is being used to field test and refine the system.

Status: Phase I of the project was completed in March 1987. Phase II is under way and will be completed in July 1989.

Diagnosis-Related-Group-Specific Resource Management Software for Hospitals

Project No.: 500-88-0036
Period: June 1988-December 1988
Funding: $ 20,712
Award: Contract
Contractor: John Rafferty and Associates
6408 West College Drive
Phoenix, Ariz. 85033
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to develop a software package for predicting and evaluating hospital resource use and needs on a diagnosis-related-group basis.

Status: This project is in the early developmental stage.

A Voucher Insurance Plan to Mobilize Volunteer Support Among the Elderly

Project No.: 500-84-0064
Period: September 1984-December 1988
Funding: $ 128,479
Award: Contract
Contractor: Berkeley Planning Associates
3200 Adeline Street
Berkeley, Calif. 94703
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The project developed a voucher insurance plan to mobilize voluntary support services among elderly Medicare beneficiaries. The concept involved having an individual earn a voucher by providing volunteer services for other elderly individuals. These vouchers could then be redeemed when an individual volunteer became ill and required assistance. A coordinator would handle the vouchers and the dispatching of volunteers. The following tasks were involved:

- Development of computer software to match volunteers with recipients and maintain accounts.
- Development of a "How to Operate a Voucher Insurance Plan (VIP)" manual.
- Development and marketing of a brochure to promote the VIP among prospective members.

Status: Phase I of the project was completed in April 1985. Phase II was funded and was to have been completed in December 1987 but needed an extension until December 1988. Phase II planned to have the VIP refined, tested, and implemented, but the implementation was never accomplished.

Medicaid Capitation Management Information System Technical Assistance Guide

Project No.: 500-87-0022
Period: June 1987-June 1990
Funding: $ 110,734
Award: Contract

Contractor: Birch and Davis Associates, Inc.
8905 Fairview Road, Suite 300
Silver Spring, Md. 20910
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project, authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219), is developing a technical guide to assist automated data processing managers in State Medicaid programs to monitor prepaid providers. Phase I resulted in a detailed outline of the guide, site visits to Medicaid programs, and the use of an expert panel for topic suggestions and product review. Phase II consists of the actual preparation of the manual.

Status: Phase I was completed in December 1987. Phase II has been awarded and is expected to be completed June 1990.

Automated Monitoring for Health Maintenance Organization Quality Assessment

Project No.: 500-87-0023
Period: June 1987-June 1990
Funding: $ 124,054
Award: Contract
Contractor: Schaller Associates, Inc.
5200 North Central, Suite 680
Phoenix, Ariz. 85012
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to implement an effective, automated quality monitoring program for health maintenance organization (HMO) administrators. Phase I produced a field-tested plan describing the minimum set of data elements required, their specific sources, and the relevant instruments, procedures, and resulting reports. Phase II is under way and is developing computer software and documentation and performing a hands-on implementation at selected HMO test sites.

Status: Phase I of the project was completed in December 1987. Phase II is under way and will be completed in June 1990.

Automated Monitoring for Nursing Home Quality Assessment

Project No.: 500-88-0041
Period: June 1988-December 1988
Funding: $ 24,925
Award: Contract
Contractor: Schaller Associates, Inc.
3200 North Central Avenue, Suite 680
Phoenix, Ariz. 85012
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to develop an automated quality of care monitoring program for nursing home administrators. The program will generate reports on profiles of care and note exceptions to norms. It will be usable by nursing and support staff and will be portable to multiple sites.

Status: This project is in the early developmental stage.

Paying for Health Care: A Comprehensive Guide to Health Care Coverage for Medicare Beneficiaries

Project No.: 500-88-0037
Period: June 1988-December 1988
Funding: $ 25,304
Award: Contract
Contractor: Berkeley Planning Associates
3200 Adeline Street, Suite 203
Berkeley, Calif. 94703
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to develop a guide to the options for financing the short- and long-term health care needs that are not met by Medicare. It is anticipated that this will be available in both booklet and computer-based form.

Status: This project is in the early developmental stage.

INFORM—Insurance Needs for Recipients of Medicare: A Comprehensive Education Program

Project No.: 500-88-0038
Period: June 1988-December 1988
Funding: $ 30,593
Award: Contract
Contractor: Health Care Education Associates
70 Campton Place
Laguna Niguel, Calif. 92677
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to develop an education program to increase the knowledge of Medicare beneficiaries regarding Medicare coverage and the need for long-term care insurance, and improve the ability of beneficiaries to make decisions about their need for supplementary insurance.

Status: This project is in the early developmental stage.

Shopper's Guide to Health Insurance for Colorado Seniors

Project No.: 500-88-0039
Period: June 1988-December 1988

Funding: $ 34,986
Award: Contract
Contractor: Information Associates, Inc.
2027 East 11th Avenue
Denver, Colo. 80206
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). The objective of the project is to develop a guide that describes the new Medicare catastrophic benefit and the variables that should be considered when purchasing supplemental insurance.

Status: This project is in the early developmental stage.

Acquired Immunodeficiency Syndrome Comprehensive Monitoring System Pilot Project

Project No.: 500-88-0040
Period: June 1988-December 1988
Funding: $ 30,767
Award: Contract
Contractor: Research Consultants
1236 South Masselin Avenue
Los Angeles, Calif. 90019
Project Officer: Sydney P. Galloway
Office of Operations Support

Description: This project is authorized under the Small Business Innovation Development Act of 1982 (Public Law 97-219). There are four objectives in this project:

- To identify the service components and the source of payment for acquired immunodeficiency syndrome (AIDS) and AIDS-related complex (ARC) patients who receive care in alternative settings (apart from traditional institutional settings).
- To identify the services that are requested but are not available in alternative-care programs.
- To develop standard protocols for collecting units of service use and cost data in AIDS alternative-care settings.
- To develop a microcomputer-based system for monitoring and managing AIDS patients costs in alternative settings.

Status: This project is in the early developmental stage.

Research Centers

The Rand/University of California, Los Angeles/Harvard Health Care Financing Policy Research Center

Project No.: 99-C-98489/9-05
Period: March 1984-July 1994
Funding: $ 9,227,140 (Total funds awarded for projects from March 1984 through September 1988)
Award: Cooperative Agreement
Awardee: The Rand Corporation
1700 Main Street
Santa Monica, Calif. 90406
Project Officer: Michael J. Baier
Office of Operations Support

Description: The primary responsibility of the Rand/University of California, Los Angeles (UCLA)/Harvard Research Center is to provide expert consultation in planning, implementing, and evaluating research and demonstrations studies related to the ongoing functioning of the Medicare and Medicaid programs. The Rand Corporation is the principal partner organization for the Research Center. The UCLA School of Public Health, the Division of Health Policy Research and Education at Harvard University, and the Consolidated Consulting Group have affiliated with Rand as subcontractor organizations under this cooperative agreement. The Center has provided support and expertise on priority initiatives in all major areas of program activity.

Status: Each year under the cooperative agreement, the RAND/UCLA/Harvard Research Center and the Health Care Financing Administration jointly develop an agenda of specific topics and projects to conduct. The Center is currently in its fifth year of operation. In November 1987, as a result of a special research center solicitation, we extended Rand's expiration date of this cooperative agreement for 5 additional years to July 31, 1994. All of their currently awarded projects are described in the appropriate sections of this *Status Report*. The following is a list of the project titles:

Alternative Payment Systems

- Capitation and Physiologic Measures of Health
- Medicare Insured Group Ratesetting
- Evaluation of the Prepaid Managed Health Care Demonstration

Physician Payment

- Specialty Differentials Across Localities
- Multiple Hospital Visits
- Assistants at Surgery
- Medicare Physician Experience Differentials
- Global Fees

Hospital Payment

- Administratively Necessary Days
- Direct Medical Education Under the Prospective Payment System
- Indirect Medical Education Under the Prospective Payment System
- Alternative Recalibration Methods Under the Prospective Payment System
- Development of Alternative Prospective Payment System Outlier Payment Options
- Simulations of Alternative Prospective Payment System Outlier Payment Options
- Impact of the Prospective Payment System on Post-Hospital Care
- Study of Patient Selection Under the Prospective Payment System
- Diagnosis-Related Group Outlier Payment Effect on Quality of Care

- Predicting Hospital Operating Costs from Previous Cost Reports
- Review of New Jersey's Prospective Payment System
- Analysis of Case Mix Growth Among Hospitals

Program Efficiencies, Analyses, and Refinements

- Background Papers for the Omnibus Budget Reconciliation Act of 1986 Report to Congress on High Volume, High Cost Procedures

Beneficiary Awareness and Prevention

- Beneficiary Incentives to Choose Alternative Health Plans

Subacute and Long-Term Care

- Medicaid Home and Community Based Waiver Programs for Acquired Immunodeficiency Syndrome Patients
- Cost of Acquired Immunodeficiency Syndrome
- Mental Health Studies
- Evaluation of Massachusetts Case-Managed Medical Care for Nursing Home Patients

Brandeis University Health Policy Research Consortium

Project No.:	99-C-89526/1-05
Period:	March 1984-July 1994
Funding:	$ 6,705,289 (Total funds awarded for projects from March 1984 through September 1988)
Award:	Cooperative Agreement
Awardee:	Brandeis University Heller Graduate School 415 South Street Waltham, Mass. 02254
Project Officer:	Michael J. Hoban Office of Operations Support

Description: The Brandeis University Health Policy Research Consortium (HPRC) is supporting research that provides background for preparation of Reports to Congress such as those mandated in the legislation (Public Law 100-360) enacting the Medicare Catastrophic Coverage Act of 1988. Also, this Research Center is conducting various studies to identify, develop, demonstrate, and evaluate effective refinements to physician reimbursement under Medicare and Medicaid. The Brandeis HPRC includes the Boston University School of Medicine; the Center for Health Economics Research, Needham, Mass.; and The Urban Institute Health Policy Center, Washington, D.C. These institutions provide expertise in the areas of health services delivery issues, physician payment alternatives, and long-term care policy options, as well as microsimulation and data processing capabilities.

Status: Each year under the cooperative agreement, the Brandeis HPRC and the Health Care Financing Administration jointly develop an agenda of specific topics and projects to conduct. The Center is currently in its fifth year of operation. In November 1987, as a result of a special research center solicitation, we extended Brandeis' expiration date of this cooperative agreement for 5 additional years to July 31, 1994. All of their currently awarded projects are described in the appropriate sections of this *Status Report*. The following is a list of the project titles:

Alternative Payment Systems

- Geographic Variation and Long-Run Capitation Ratesetting for Medicare Expenditures
- Redefine Geographic Areas for Health Maintenance Organization (HMO) Payments
- Adjusted Average Per Capita Cost Geographic Reconfiguration
- Diagnostic Cost Group Model
- Continuous Update Diagnostic Cost Group Model
- Clinical Refinement of Diagnostic Cost Group Model
- Study of the Health Maintenance Organizations That Have Not Renewed Their Tax Equity and Fiscal Responsibility Act Risk Contracts
- Constructing a Longitudinal Data Base for HMO's with Medicare Risk Contracts

Quality of Care

- Using Case-Mix Systems to Measure Quality of Care
- Development of Ambulatory Surgery Quality of Care Measures and Monitoring Strategy

Physician Payment

- Medicare Payments for Anesthesia Services
- Interim Geographic Practice Cost Index
- Geographic Variation in Inpatient Physician Consultation Rates
- Urban and Rural Differences in Physician Practices
- Urban and Rural Manpower Shortage Areas
- Diagnostic Test Interpretation and Medical Visit Billing
- Independent Practice Association Physician Relationships
- Physician Preferred Provider Organization Demonstration Design

Hospital Payment

- Uncompensated Care Tables: 1984 American Hospital Association and Urban Institute Survey
- Hospital Occupancy Rates: Impact on Capital Expenditures
- Hospital Capital Constuction Cost Index

Program Efficiencies, Analyses, and Refinements

- Data Quality Assessment for the Cost-Effectiveness Analysis of the Modification of Diet in the Renal Disease Study
- Estimating Cost of Training for Self-Dialysis
- Study to Evaluate the Use of Mail Service Pharmacies
- Medicare Financing Simulation Model

Subacute and Long-Term Care

- Capitation Reimbursement for Frail Elderly
- Cohort Analysis of Disabled Elderly
- Study of Alternative Out-of-Home Services for Respite Care
- Financial Impact to Beneficiaries of Nursing Home Care

University of Minnesota Research Center

Project No.:	99-C-99169/5-01
Period:	January 1988-July 1991
Funding:	$ 832,419
Award:	Cooperative Agreement
Awardee:	University of Minnesota 1919 University Avenue St. Paul, Minn. 55104
Project Officer:	Michael J. Baier Office of Operations Support

Description: On November 19, 1987, the University of Minnesota's application as a research center for the Health Care Financing Administration was approved for the first-year period, January 1, 1988 through December 31, 1988. This period was subsequently extended through July 31, 1989. Overall, the cooperative agreement is expected to be in effect through July 31, 1991. This agreement is, however, contingent on the availability of future year funds and the overall progress of the Center in meeting study objectives. To assist in this effort, the University of Pennsylvania and Mathematica Policy Research, Inc., are two major subcontractors affiliated with the University of Minnesota.

Status: As of September 30, 1988, nine projects are being conducted under the University of Minnesota Research Center. All of their currently awarded projects are described in the appropriate sections of this *Status Report*. The following is a list of the project titles:

Quality of Care

- Outcome Measures for Assessment of Hospital Care

Physician Payment

- Volume and Intensity of Physician Services
- Effectiveness of Medicare Carrier Volume and Intensity Controls
- Physician Preferred Provider Demonstration
- Determinants of Cost of Care: The Influence of Physician Style Versus Patient Characteristics
- Diagnostic Tests-Technical Components

Hospital Payment

- Review of Montana Medical Assistance Facility Demonstration Project

Beneficiary Awareness and Prevention

- Study of Inappropriate Use of Medications by Medicare Beneficiaries

Subacute and Long-Term Care

- Report on Costs of Case Management

Project Hope Health Policy Research Center

Project No.:	99-C-99168/3-01
Period:	January 1988-July 1991
Funding:	$ 738,315
Award:	Cooperative Agreement
Awardee:	The People-To-People Health Foundation, Inc. Two Wisconsin Circle, Suite 500 Chevy Chase, Md. 20815
Project Officer:	Beverly A. Thompson Office of Operations Support

Description: On November 19, 1987, Project Hope's (Health Opportunity for People Everywhere) application as a research center for the Health Care Financing Administration was approved for the first-year period, January 1, 1988 through December 31, 1988. This period was subsequently extended through July 31, 1989. Overall, the cooperative agreement is planned to be in effect through July 31, 1991. This agreement is, however, contingent on the availability of future year funds, as well as the overall progress of the Center in meeting study objectives. To assist in this effort, the Vanderbilt University Health Policy Center, Medical College of Virginia Williamson Institute, and Social and Scientific Systems, Inc., are the three major subcontractors to Project Hope.

Status: As of September 30, 1988, eight projects are being conducted under the Project Hope Research Center. All of the currently awarded projects are described in the appropriate sections of this *Status Report*. The following is a list of the project titles:

Alternative Payment Systems

- Review of Private Sector's Payment Methodologies for Hospital Outpatient Services
- Medicare Participating Heart Bypass Center Demonstration Design
- Capitated Community Nursing Organizations

Quality of Care

- Option Paper on Collection of Health Status Information on Consecutive Cohorts of Medicare Beneficiaries

Hospital Payment

- Hospital Transfer and Referral Patterns
- Interaction Between Medicare Payments and Nursing Shortages

Program Efficiencies, Analyses, and Refinements

- Pricing and Coverage Decisions for New and Existing Technologies

Technical Support: Evaluation of Demonstrations

Project No.:	500-87-0028; 500-87-0029; 500-87-0030
Period:	June 1987-June 1991
Funding:	$ 6,150,000
Award:	Contracts
Contractors:	Mathematica Policy Research Box 2393 Princeton, N.J. 08543 Lewin/ICF 1090 Vermont Ave. Washington, D.C. 20005 Abt Associates, Inc. 55 Wheeler St. Cambridge, Mass. 02138
Project Officer:	Tony Hausner Division of Long-Term Care Experimentation

Description: The Health Care Financing Administration (HCFA) has awarded indefinite quantity contracts to Mathematica Policy Research, Lewin/ICF, and Abt Associates. These contracts are designed to assist in evaluating demonstrations through the use of small-scale tasks that can be awarded within short timeframes. The three firms will compete for each task.

Status: All of the currently awarded projects are described in the appropriate sections of this *Status Report*. The following is a list of project titles:

Alternative Payment Systems

- Evaluation of Diagnostic Cost Group Pilot Demonstration
- Evaluation of New York State Products of Ambulatory Care Demonstration Project
- Evaluation of HealthChoice, Inc.—Independent Broker
- Evaluation of the Florida Alternative Health Plans Project

Hospital Payment

- Rural Secondary Specialty Center Demonstration Evaluation

Program Efficiencies, Analyses, and Refinements

- New Jersey Mobile Intensive Care System Demonstration Evaluation
- Geriatric Continence Evaluation Contract
- Evaluation of the Omnibus Budget Reconciliation Act of 1987 Medicare Payment for Therapeutic Shoes for Individuals with Severe Diabetic Foot Disease Demonstration

Beneficiary Awareness and Prevention

- Evaluation of the Office of Public Affairs Marketing Campaign
- Cross-Cutting Evaluation of Medicare Prevention Demonstrations
- Study of Medicare Coverage of Influenza Vaccine Demonstration and Evaluation

Subacute and Long-Term Care

- Evaluation Design for Medicare Alzheimer's Disease Demonstration

Catastrophic Coverage Studies

Study to Evaluate the Use of Mail Service Pharmacies

Project No.:	99-C-98526/1-05
Period:	September 1988-June 1989
Funding:	$ 238,152
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	William L. England Division of Health Systems and Special Studies

Description: Section 202(k)(1)(B) of the Medicare Catastrophic Coverage Act of 1988 requires a study to evaluate the use of mail service pharmacies to reduce costs to the Medicare program and to Medicare beneficiaries. Issues to be analyzed include: administrative costs, ingredient costs, Medicare program costs, beneficiary costs, patient counseling, use of multiple source drugs, requirement of an electronic point-of-sale tracking system, and quality surveillance.

Status: The project is in the early developmental phase.

Other Studies

Medicaid Program Evaluation

Period:	September 1983-September 1988
Project Officer:	Harry L. Savitt Division of Beneficiary Studies

Description: This project will assess the changes made in the Medicaid program as a result of recent legislation. The Medicaid Program Evaluation focuses principally on program changes since the Omnibus Budget Reconciliation Act of 1981, an Act which considerably increased State flexibility in determining eligibility, reimbursement, and coverage under the program. The evaluation addresses the implementation and impact of selected changes in the program to provide knowledge for policy assessment and future legislative change. It is focused on a select list of issues and policy questions.

Status: Three contracts were awarded on September 30, 1983, to conduct the evaluation studies:

- La Jolla Management Corporation, with subcontractor SysteMetrics, is studying home- and community-based care and incentives for family care.
- Abt Associates, with subcontractors Health Economics Research and Compass Consulting, is studying hospital reimbursement changes.
- James Bell Associates, with subcontractors Syracuse University, The Urban Institute, SysteMetrics, and National Governors Association, is studying freedom of choice, eligibility, cost sharing, Federal financial participation, and subsequent legislation, and preparing the project synthesis report.
- Final reports from La Jolla, Abt, and Bell are expected in late 1988.

Medicaid Program Evaluation: Cluster I

Project No.:	500-83-0056
Funding:	$ 1,579,233
Award:	Contract
Contractor:	La Jolla Management Corporation 5950 Symphony Woods Road Columbia, Md. 21044

Description: This project addresses two tasks as part of the Medicaid Program Evaluation. The first deals with the home- and community-based waiver program. Under Section 2176 of the Omnibus Budget Reconciliation Act of 1981, States under a waiver may institute a variety of home- and community-based services to individuals who, but for the waiver, would be in long-

term care institutions. The following questions will be addressed:

- Has the program reduced institutionalization?
- Has the program reduced costs?
- Has cost shifting occurred from other programs, specifically Title XX of the Social Security Act and Title III of the Older Americans Act?
- Can we identify the elements of a successful program?

The second task deals with financial incentives for family care. Several States provide financial support through direct payments or tax incentives to family members to encourage their assistance to their elderly relatives. The major questions are:

- What programs are in operation?
- What have been their costs and savings?
- Who are the beneficiaries of such programs and what are their characteristics?
- What are the characteristics of functionally limited persons living in the community that permit them to avoid institutionalization?
- What are the characteristics of successful programs?

Status: The contract was awarded September 30, 1983. A Report to Congress entitled, "Studies Evaluating Medicaid Home- and Community-Based Care Waivers," was submitted to Congress in September 1985. An interim report was issued early 1987, and a final report is expected in late 1988.

Medicaid Program Evaluation: Cluster II

Project No.: 500-83-0057
Funding: $ 763,629
Award: Contract
Contractor: Abt Associates, Inc.
55 Wheeler Street
Cambridge, Mass. 02138

Description: This project addresses inpatient hospital reimbursement as part of the Medicaid Program Evaluation. To help bring hospital costs under control, the Omnibus Budget Reconciliation Act of 1981 granted the States new flexibility in the establishment of inpatient hospital reimbursement methodologies. Major questions are:

- What responses have States made to the options permitted by Federal law?
- Have reductions in expenditures resulted?
- Specifically, what has been the impact of the California competitive contracting program? Programs in Illinois, Pennsylvania, New Jersey, and Texas will be studied for comparison.
- What have been the effects on recipients and providers of care?
- Have costs been shifted to private payers?
- To what degree and in what ways has the implementation of Medicare prospective payment had an impact on State Medicaid programs?

Status: The contract was awarded September 30, 1983. A final report was received in early 1988.

Medicaid Program Evaluation: Cluster III

Project No.: 500-83-0058
Funding: $ 1,506,005
Award: Contract
Contractor: James Bell and Associates, Inc.
1700 North Moore Street, Suite 1622
Arlington, Va. 22209

Description: This project addresses several issues as part of the Medicaid Program Evaluation. The first is freedom-of-choice waivers. Under Section 2175 of the Omnibus Budget Reconciliation Act (OBRA) of 1981, States may institute a variety of programs to reduce costs by limiting the provision under Medicaid that guarantees freedom of choice of provider. Major questions are:

- How have the States responded to this provision?
- Have there been program savings?
- How have access to and quality of health care been affected?

The second is eligibility. OBRA contained several changes that directly and indirectly reduced the number of persons eligible for Medicaid. Major questions are:

- How have the States responded to these provisions?
- How have eligibility changes in related programs (Aid to Families with Dependent Children and Supplemental Security Income) affected Medicaid enrollment?
- How have entitlement and expenditures been affected?
- How has the reduction in Medicaid coverage affected other assistance programs, out-of-pocket expenditures, and costs to hospitals and other payers?

The third is cost sharing. Under the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982, States are permitted to impose nominal copayments, with certain limitations, to reduce program outlays, and to instill cost consciousness on the part of the recipients. Major questions are:

- How have the States responded?
- What has been the effect of copayments on utilization and costs?

The fourth is Federal financial participation. OBRA provides for the reduction of Federal matching funding for 3 years, beginning October 1, 1982, subject to certain exemptions. Major questions are:

- Which States were exempted from the reductions and for what reasons?
- How much did the Federal Government save?
- How did the States adjust to reduced funding?

Fifth, as the Medicare prospective payment system changed the environment of Medicaid, the evaluation will attempt to address the implications of these new provisions. The final task of the project will be to provide for the preparation of an annual interpretation, summary, and synthesis of evaluation results.

Status: The contract was awarded September 30, 1983. Final reports were received in early 1988.

Title XVIII Hospice Benefit Program Evaluation (Medicare)

Project No.:	500-85-0024
Period:	April 1985-March 1988
Funding:	$ 1,295,156
Award:	Contract
Contractor:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Feather Ann Davis Division of Beneficiary Studies

Description: This project addresses many of the hospice questions raised by the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) and Deficit Reduction Act of 1984 (Public Law 98-369). The objectives of this evaluation are to determine. . . . "whether or not the reimbursement method and benefit structure . . . for hospice care under Title XVIII . . . are fair and equitable and promote the most efficient provision of hospice care . . . and make recommendations for legislative changes in the hospice care reimbursement or benefit structure." Specific information will be provided on the current prospective payment system for hospice. The evaluation will address congressional and departmental needs for information on the hospice benefit for making decisions regarding the possible modification of the benefit and the reimbursement mechanisms of the ongoing program operation.

Status: Analytic work is under way utilizing available Health Care Financing Administration 1984, 1985, and 1986 administrative data on hospice patients and a comparison group of Medicare cancer patients who died in 1984, 1985, and 1986. Medicare certified hospice cost report data will be analyzed and compared with cost report data from a sample of noncertified hospices. A final report will be prepared by December 1988. An interim report is available (HCFA Pub. No. 03248, September 1987) entitled, "Medicare Hospice Benefit Program Evaluation."

Noncertified Hospice Cost Analysis

Project No.:	500-85-0038
Period:	June 1985-March 1988
Funding:	$ 1,656,879
Award:	Contract
Contractor:	Jack Martin and Co. 30150 Telegraph Road, Suite 155 Birmingham, Mich. 48010
Project Officer:	Feather Ann Davis Division of Beneficiary Studies

Description: This study is designed to collect fiscal years 1985 and 1986 cost data from a stratified random sample of 96 hospices that are not participating in the Medicare hospice benefit, to serve as a control group for the evaluation of the Medicare hospice benefit legislation.

Status: A final report is expected by October 1988.

Population-Based Study of Hospice

Project No.:	18-C-98674/0-03
Period:	September 1984-June 1988
Funding:	$ 741,165
Award:	Cooperative Agreement
Awardee:	Fred Hutchinson Cancer Research Center 1124 Columbia Street Seattle, Wash. 98104
Project Officer:	Feather Ann Davis Division of Beneficiary Studies

Description: This is a study of utilization among hospice and nonhospice terminal cancer patients; the effect of hospital prospective reimbursement on hospice case load and length of stay; and hospice penetration of the market. Seven data sets will be linked in order to provide both economy and power. The area under study is 13 counties in western Washington.

Status: A final report is expected by November 1988.

Studies of Medicare Use Before Death

Funding:	Intramural
Project Officers:	Gerald F. Riley and James D. Lubitz Division of Beneficiary Studies

Description: These studies examine the use of Medicare services in the last years of life. This information is needed because of the large percent of Medicare expenditures for enrollees in their last year and because of the interest in hospice care as an alternative kind of care for the terminally ill.

Status: The first study showed that 28 percent of Medicare expenditures are for persons in their last year, that persons who die receive more than six times the reimbursements of other enrollees, and that expenditures in the last year are concentrated in the last few months. The study also showed that the relative share of Medicare expenditures going to enrollees in their last year has changed little from 1967 to 1979. The results of this study were published in the Spring 1984 issue of the *Health Care Financing Review.* A second study analyzes Medicare use by cause of death. The study uses cause of death data from the National Center for Health Statistics linked to Medicare data. Medicare expenditures in the last year are examined by cause of death (e.g., cancer, heart attack), type of service, age, and sex. Results indicate there is considerable variation in Medicare reimbursements in the last year of life, by cause of death. An article entitled, "The use and costs of Medicare services, by cause of death" was published in *Inquiry*, Vol. 24, No. 3, Fall 1987.

Use of Services by the Dually Entitled (Crossovers)

Funding:	Intramural
Project Director:	Alma B. McMillan Division of Beneficiary Studies

Description: More than 13 percent of the aged population are covered by both Medicare and Medicaid. Two studies, previously published in the Summer 1983 and Winter 1984 issues of the *Health Care Financing Review*, found that the dually entitled (crossover) population differs substantially from aged persons covered by Medicare only by demographic characteristics and health service use. The dually entitled had higher per capita costs and higher mortality; they were less educated, had a poorer health status, and had lower incomes.

Status: This study on the crossovers uses person-level data from Medicare and Medicaid in California, New York, Georgia, and Tennessee. It focuses on patterns of long-term care and hospital use by the crossovers. The data for the study were produced by linking Medicare and Medicaid data files. The link of Medicare and Medicaid data was based on records in the 1981 Continuous Medicare History Sample File and 1981 Medicaid Tape-to-Tape data for the four participating States. In 1981, these four States had about one-third of the Nation's elderly Medicaid recipients and also accounted for about one-third of Medicaid expenditures. Major findings show that about one-fifth of dually entitled persons in the four study States used some Medicaid-covered nursing home care—a rate four times that for the general aged population. Per capita costs for dually entitled persons who used nursing home care was five times as great as for those who did not. Per capita expenditures for all decedents were twice that for all survivors. An article on this study entitled, "Nursing home costs for those dually entitled to Medicare and Medicaid," was published in the *Health Care Financing Review,* Vol. 9, No. 2, Winter 1987.

Use of Medicare Services by Disabled Enrollees Under 65 Years of Age

Funding:	Intramural
Project Director:	Gerald F. Riley Division of Beneficiary Studies

Description: More research has been devoted to the Medicare aged population than to the population of disabled enrollees under 65 years of age. Yet disabled enrollees comprise about 10 percent of Medicare enrollment, and Medicare expenditures for them have been rising faster than for aged enrollees.To increase knowledge of the Medicare disabled population, analyses are being carried out on patterns of health services used by the disabled. In particular, this population is being analyzed by type of disability award, i.e., disabled worker, adult disabled in childhood, or disabled spouse. Also, the aged (over 65 years of age) Medicare population who were formerly disabled Medicare beneficiaries are being studied. In a second study, Medicare utilization data have been linked to Social Security Administration data on a cohort of disabled workers who first became entitled to disability benefits in 1972. Their Medicare use from 1974 through 1981 will be studied to explore the relation of disability characteristics to Medicare use through time. The specific objectives of the project are to:

- Describe the levels and patterns of reimbursable Medicare costs over time at the individual level for a cohort of disability beneficiaries from 1974 through 1981.
- Identify the characteristics of disabled beneficiaries that are associated with different reimbursement levels and patterns.
- Describe the individual costs and utilization components that comprise overall reimbursement amounts.

Status: An article based on the first study, "Health care use by Medicare's disabled enrollees," was published in the *Health Care Financing Review*, Vol. 7, No. 4, Summer 1986. Based on the second study, an article entitled, "Medicare utilization by disabled worker beneficiaries: A longitudinal analysis" was published in the *Social Security Bulletin*, Vol. 50, No. 12, December 1987.

Health Services Utilization Study

Project No.:	18-P-98442/9-01
Period:	September 1983–October 1987
Funding:	$ 782,916
Award:	Grant
Grantee:	The Rand Corporation 1700 Main Street Santa Monica, Calif. 90406
Project Officer:	James D. Lubitz Division of Beneficiary Studies

Description: The purpose of this study is to examine whether high-use rates of certain procedures in selected geographic areas reflect inappropriate overuse and, to a lesser extent, whether low procedure rates in other areas reflect underuse. Three procedures that show large geographic variation, consume a significant amount of resources, and are likely to be overused have been selected for study from six candidate procedures. Medicare Part B claims data from 12 areas in 8 States were used to study geographic variation. A high- and low-rate area will be selected from the 12 areas for each procedure. The records of 100 physicians for each procedure in each area will be studied to determine the indications for performing each procedure. Then the indications for each procedure, as abstracted from the medical records, will be compared with the indications drawn up by an expert panel of physicians. The hypothesis is that the indications in the high-rate areas will be less generally accepted, suggesting inappropriate overuse.

Status: Work on this study has been completed. The following articles have been published:

- "Variations in the use of medical and surgical services by the Medicare population," *The New England Journal of Medicine,* Vol. 314, January 1986.
- "How coronary angiography is used: Clinical determinants of appropriateness," *Journal of the American Medical Association,* Vol. 258, No. 18, 1987.
- "Does inappropriate use explain geographic variations in the use of health services?: A study of three procedures," *Journal of the American Medical Association,* Vol. 258, No. 18, November 1987.

A complete bibliography of reports from the project is available from the Rand Corporation.

Research on Competitive Forces Driving Medicare Utilization

Project No.:	17-C-98522/9-02
Period:	September 1984-November 1988
Funding:	$ 246,495
Award:	Cooperative Agreement
Awardee:	SRI International 333 Ravenswood Avenue Menlo Park, Calif. 94025
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The major objective of this project is to analyze how various factors affect Medicare beneficiaries' utilization of and expenditures for services. These factors include: ownership of supplemental health insurance policies, beneficiaries' knowledge of the Medicare program and of the supplemental policies they own, and the extent for which beneficiaries are treated on assignment by physicians. Data sources include: a detailed 1982 survey of a random sample of Medicare beneficiaries in six States (California, Florida, Mississippi, New Jersey, Washington, and Wisconsin), copies of the insurance policies owned by beneficiaries in this sample, and complete Medicare utilization records for this sample from 1980 to 1982.

Status: Since the receipt of the Medicare Automated Data Retrieval System (MADRS) Files in June 1986, the project has:

- Addressed methodological issues concerning the primary care physician, billed charges, and the econometric model.
- Begun collecting data on physician characteristics.
- Created data files for analysis and begun analyses.

The final report is expected mid-1989.

Wisconsin Welfare Reform Demonstration

Project No.:	11-P-99154/5-01
Period:	October 1987-September 1990
Award:	Grant
Awardee:	Wisconsin Department of Health and Social Services P.O. Box 7850 Madison, Wis. 53702
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: The demonstration has waivers from both the Health Care Financing Administration and the Family Support Administration, permitting:

- A "learnfare" requirement that teenage Aid to Families with Dependent Children (AFDC) recipients be in school.
- A requirement that parents whose youngest child is over 3 months of age register for work or training.
- Major changes in the disregard of earnings, with less being disregarded in the initial 4 months of work and more in the subsequent 8 months.
- Automatic wage withholding for child support.
- A standard Medicaid extension of 12 months for recipients who lose AFDC eligibility because of earnings, in lieu of the current law's 4-, 9-, and 15-month extensions.

Status: In the first year of this project, consideration of limited child-care resources led to limiting implementation of the work/training requirement to women with children under 2 years of age. Also, one-third of the "learnfare" recipients were parents of small children who did not have child care and were, therefore, neither in school nor sanctioned. The waiver for the 12-month Medicaid extension was not implemented in the first year.

Realizing Economic Achievement

Project No.:	18-P-99156/2-01
Period:	October 1987-September 1992
Award:	Grant
Awardee:	New Jersey Department of Human Services 222 South Warren Street Trenton, N.J. 08625
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: Realizing Economic Achievement (REACH) is a welfare-reform project with waivers from both the Health Care Financing Administration and the Family Support Administration. The project requires Aid to Families with Dependent Children (AFDC) recipients whose youngest child is over the age of 2 to participate in employment-related activities. Additional day-care services are provided. Child-support enforcement is proposed, with automatic wage withholding. A Medicaid extension of 12 months is provided to recipients who lose AFDC eligibility because of earnings, in lieu of the current law's 4-, 9-, and 15-month extensions.

Status: The project began immediate implementation, statewide, of the 12-month Medicaid extension, with the months in excess of the current law funded totally by the State, pending Federal savings from other demonstration components. Other components, with the exception of automatic wage withholding of child support, were phased into 10 of the State's 21 counties throughout the first year of the demonstration.

Evaluation of Employer-Sponsored Retiree Health Insurance

Project No.:	18-C-99181/5-01
Period:	June 1988-December 1989
Funding:	$ 187,919
Award:	Cooperative Agreement
Awardee:	University of Illinois at Chicago P.O. Box 4348 Chicago, Ill. 60680

Project Officer: Gerald F. Riley
Division of Beneficiary Studies

Description: The project will use data from the Employee Benefits Survey (1981-87) from the Bureau of Labor Statistics and from the Survey of Income and Program Participation (1984) from the Bureau of the Census to perform the following tasks:

- Describe the extent of retiree health insurance coverage, including how coverage varies across segments of the population and how it has changed in recent years. Describe the content of such coverage, such as services covered and cost-sharing provisions.
- Use econometric models to determine how medium and large firms decide to offer coverage and the characteristics of that coverage.
- Determine in what ways employee retiree benefits and medigap policies exceed Medicare coverage among the aged.
- Determine the number of aged in the United States who currently have various types of supplemental insurance and combinations of such insurance.
- Determine the prevalence and causes of benefit termination among retirees.
- Assess the implications of these findings on Medicare policy and on the regulation of employer-sponsored retiree health coverage.

Status: The cooperative agreement has been extended for 6 months to add a task that will describe the ways in which firms coordinate their employee health benefits with Medicare for their retirees. The information will be gathered through a survey that is being implemented in October 1988.

Medicare Financing Simulation Model

Project No.: 99-C-98526/1-05
Period: August 1988-February 1989
Funding: $ 34,553
Award: Cooperative Agreement
Awardee: Brandeis University Research Center
(See page 66)
Task Leader: Jesse M. Levy
Division of Reimbursement and Economic Studies

Description: This project will assess the feasibility of adapting The Urban Institute's Transfer Income Model (TRIM) to perform policy simulations on the Medicare program. The objectives will be to develop a model designed to assess the effects of changes in cost sharing, covering the use of services, physician and hospital payments, and financial outlays of the Medicare program and to determine the effect of different catastrophic insurance thresholds, income-related premiums, and any of these kinds of policy changes on different income and wealth groups as well differences among geographical areas. This research task will also enable the Health Care Financing Administration to determine the effect of these changes on Medicaid eligibility.

Status: The project is in the early developmental stage.

Pricing and Coverage Decisions for New and Existing Technologies

Project No.: 99-C-99168/3-01
Period: August 1988-August 1989
Funding: $ 70,000
Award: Cooperative Agreement
Awardee: Project Hope Research Center
(See page 67)
Task Leader: William J. Sobaski
Division of Reimbursement and Economic Studies

Description: The purpose of the project is to develop a methodology or set of methodologies to accurately price new and existing technologies that have been approved for Medicare coverage under Medicare Part A and Part B.

Status: The project is in the early developmental stage.

Beneficiary Awareness and Prevention

Beneficiary Awareness

Information for Prudent Insurance Choices

Project No.: 18-C-98686/9-03
Period: November 1984-March 1988
Funding: $ 300,000
Award: Cooperative Agreement
Awardee: Western Consortium for the Health Professions, Inc.
703 Market Street, Suite 535
San Francisco, Calif. 94103
Project Officer: Herbert A. Silverman
Division of Program Studies

Description: This project developed a methodology for organizing and presenting data on illness costs and insurance benefits that are intended to increase the capacity of aged Medicare beneficiaries to make prudent choices in selecting supplemental health insurance coverage. The informational documents generated by this methodology permit comparisons of out-of-pocket costs and benefits of alternative plans. The comparisons are based on "scenarios" involving episodes of illnesses common to the aged. Workshops were presented to Medicare beneficiaries in the Los Angeles area that described charges associated with selected illness episodes for various health insurance options available in the study area. Two groups were given pre- and post-test measurements of their choices regarding health insurance options. In the workshops for the test group, information on out-of-pocket expenses associated with each illness episode was presented for each of the options available to them. In the workshops for the comparison groups, only general information on the insurance options was presented. The options presented included: medigap plans with a range of benefits, including skilled nursing facility care; closed and open panel health maintenance organizations; an exclusive provider organization option providing benefits beyond

that generally offered by health insurance plans (e.g., glasses, prescription drugs); and a disease-specific plan.

Status: The workshop presentations and data collection have been completed. The final report is expected in early 1989.

Test of the Out-of-Pocket Cost Savings as an Incentive for Changing Beneficiary Choice Behavior

Project No.:	17-C-98392/3-02
Period:	September 1983-October 1988
Funding:	$ 709,316
Award:	Cooperative Agreement
Awardee:	Morgan State University Institute for Urban Research Baltimore, Md. 21239
Project Officer:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: This project was designed to test the degree to which a significant number of Medicare beneficiaries can be motivated by exposure to expected out-of-pocket costs, to act as cost-conscious buyers, thus putting pressure on providers to increase the rates at which they accept assignment. This project consisted of three phases. During the first phase, an actuarial model was developed to estimate economic consequences of decisions made by Medicare beneficiaries. During this phase surveys were also conducted of local primary care physicians. In the second phase, 2,000 persons were surveyed in two sites—Baltimore, Maryland and Monroe County, New York—and provided Medicare information through seminars and telephone counseling sessions and subsamples.

Status: The key result of the study is that despite the educational efforts with the pre-enrollee consumers, little knowledge was acquired, and correspondingly, little of the expected provider choice behavior occurred. Another key finding came from the survey of physicians. Physicians reported that competitive pressure from patients or other medical care sources would not cause them to accept assignment more often. The final report is available through the National Technical Information Service, accession number PB89-113922/AS.

Evaluation of the Office of Public Affairs Marketing Campaign

Project No.:	500-87-0028-3
Period:	September 1987-March 1989
Funding:	$ 172,651
Award:	Technical Support: Evaluation of Demonstrations (See page)
Awardee:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	Robin J. Brocato Division of Health Systems and Special Studies

Description: The Health Care Financing Administration's (HCFA's) Office of Public Affairs (OPA) conducted a 6-month information campaign in Albuquerque, N. Mex.; Cleveland, Ohio; and Houston, Tex. Efforts were focused on Medicare beneficiaries and relatives and friends who advise them; health care providers; and business, labor, and financial institutions. The purpose of the campaign was to enhance awareness of and expand information on using health maintenance organizations (HMO's) as an alternative to traditional Medicare benefits. The evaluation will assess the impact of the campaign on Medicare beneficiaries in terms of:

- Their awareness and knowledge of HMO's, both generally and specifically, as they are available to Medicare beneficiaries.
- Their sources of information about HMO's.
- Their interest in learning more about HMO's and in enrolling as members.

The evaluation will include a case study documenting the OPA marketing campaign and a pre- and post-campaign survey of Medicare beneficiaries.

Status: The case study and awareness survey have been completed. The final evaluation report will be available in early 1989.

Beneficiary Incentives to Choose Alternative Health Plans

Project No.:	99-C-98489/9-05
Period:	May 1986-September 1989
Funding:	$ 422,309
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Thomas A. Noplock Division of Hospital Experimentation

Description: The objective of this project is to estimate how various design features of alternative payment systems for Medicare affect beneficiaries' decisions to remain in the traditional program or to join an alternative health system. It is a study about beneficiaries' preferences among hypothetical health plans through use of a mail survey.

Status: The study's design, completed in March 1988, is entitled "Beneficiary Incentives to Participate in Alternative Health Plans: A Research Design" (N-2733-HCFA). Field work on the survey began in June 1988 and is expected to be completed by November. A draft final report is expected by July 1989.

Study of Inappropriate Use of Medications by Medicare Beneficiaries

Project No.:	99-C-99169/5-01
Period:	August 1988-February 1989
Funding:	$ 23,279
Award:	Cooperative Agreement
Awardee:	University of Minnesota Research Center (See page 67)

Tack Leader:	Dennis M. Nugent Division of Long-Term Care Experimentation

Description: The primary task of this study is to summarize the literature on the inappropriate use of medications, with special attention given to the elderly population. The study will attempt to address the following questions:

- How prevalent is the inappropriate use of medication in the elderly population?
- Which medications are most likely to be prescribed inappropriately?
- Which interventions are most likely to lead to a reduction in inappropriate medication use by the elderly?

Status: This study is in the early developmental stage.

Prevention

A Demonstration and Evaluation of a Preventive Services Package to Provide Early Detection of Illness and Monitoring of High-Risk Medicare Beneficiaries

Project No.:	95-C-98539/1-03
Period:	September 1985-June 1988
Funding:	$ 788,407
Award:	Cooperative Agreement
Awardee:	Blue Cross/Blue Shield of Massachusetts, Inc. Health Program Development 100 Summer Street Boston, Mass. 02110
Project Officer:	Bonnie Edington Division of Health Systems and Special Studies

Description: The awardee designed and implemented a population-based randomized study that sought to test the impact of a four-part annual prevention benefit package on the health status and health service costs and utilization of Medicare beneficiaries. The benefit package included:

- An annual risk appraisal with clinical screening (detailed health history, height, weight, blood pressure, and vision check) and comprehensive assessment.
- Drug evaluation.
- Health education and health promotion activities.
- Referrals to community resources.

Status: Five months after the letters of invitation were sent, only 300 persons in the experimental group (15 percent) had agreed to participate; therefore, the demonstration was terminated effective June 15, 1988. Preliminary evaluation results indicate that nearly one-half of the recipients did not recall having received the letters of invitation. Among those who did, and who declined to participate, 70 percent gave as their reason the fact that they already had a physician; and more than one-half stated that they were healthy, which suggests that they did not understand the purpose of these preventive services.

Prevention of Falls in the Elderly

Project No.:	95-C-98578/9-03
Period:	September 1984-December 1988
Funding:	$ 695,894
Award:	Cooperative Agreement
Awardee:	Kaiser Foundation Research Institute Health Services Research Center 4610 Southeast Belmont Street Portland, Oreg. 97215
Project Officer:	Margaret Coopey Division of Long-Term Care Experimentation

Description: In September 1984, a cooperative agreement was awarded to the Kaiser Foundation Research Institute to test both the cost effectiveness of a comprehensive environmental and behavioral program designed to prevent falls in the elderly and to estimate the net financial benefits or costs to a health maintenance organization (HMO) and the Medicare program of a given level of falls prevention for a defined target population. Funding support for this demonstration was supplemented by the National Institute on Aging, the Robert Wood Johnson Foundation, and Kaiser Foundation Hospitals, Inc. The project has been conducted at the Health Services Center, Kaiser Permanente Medical Care Program in Portland, Oregon. This is a randomized study of 2,509 households with one or more Kaiser members 65 years of age or over who were recruited into two groups, control and intervention. Baseline data on household environmental circumstances, fall hazards, and the member's physical and psychological health status were obtained during a home audit. Participants were randomized into one of the two groups. Participants in the intervention group were offered a special falls prevention program that included a self-management educational curriculum and the installation of safety equipment and minor home renovations to correct safety hazards. In addition, a retrospective medical record review will be completed for a blind control group consisting of a 5-percent sample of Kaiser members 65 years of age or over to measure the incidence of fall-related medical care use.

Status: The project is in its fourth year of operation. The followup period to assess the incidence of falls ended December 1987. The cooperative agreement was extended until December 1988 to allow the final report to the Health Care Financing Administration to include the studies' analysis of fall-related medical care use. The final report is expected by Spring 1989.

The Economy and Efficacy of Medicare Reimbursement for Preventive Services

Project No.:	95-C-98516/4-03
Period:	September 1985-September 1991
Funding:	$ 1,800,000
Award:	Cooperative Agreement
Awardee:	University of North Carolina Department of Social and Administrative Medicine 300 Bynam Hall, 008A Chapel Hill, N.C. 21514

Project Officer:	Spike Duzor Division of Health Systems and Special Studies

Description: The University of North Carolina at Chapel Hill is implementing the preventive services demonstration in the Research Triangle area using community clinics. Participants are identified from the registers of cooperating clinics and will be invited to participate. Those patients willing to be participants are randomly allocated to one of four groups: clinical screening only, health promotion only, clinical screening plus health promotion, and the usual care control. The total sample size will be approximately 2,400. Clinical screening and health promotion services will be reimbursed separately (i.e., to average $100) at annual rates of $57 for screening and $43 for health promotion services. The Health Care Financing Administration, Division of Research and Demonstrations Systems Support, is processing the claims. The evaluation will be conducted by the Department of Social and Administrative Medicine and the Health Services Research Center of the University of North Carolina at Chapel Hill.

Status: In October 1986, the project began offering clinical screening, health promotion, and followup services to appropriate participants. In June 1988, the project reached its target population of 2,400 clients, and recruitment for preventive services has ended.

Cost Utility of Medicare Reimbursement for Preventive Services in a Health Maintenance Organization

Project No.:	95-C-99161/0-01
Period:	May 1988–April 1992
Funding:	$ 1,320,000
Award:	Cooperative Agreement
Awardee:	University of Washington School of Public Health and Community Medicine Seattle, Wash. 98195
Project Officer:	Sherrie L. Fried Division of Health Systems and Special Studies

Description: The University of Washington will implement a randomized design to assess the cost savings and changes in health-related quality of life associated with providing a preventive-service package (annual health risk assessment, individual health promotion, and group counseling) for Medicare beneficiaries enrolled in Group Health Cooperative (GHC) of Puget Sound. The project will take place in Seattle, Washington, at four GHC medical centers.

Status: This project is in its planning phase. Work has begun in the areas of subject recruitment, project evaluation, and project interventions. The baseline mail questionnaire and sampling frame have been developed. The design of the health promotion and disease prevention interventions is being finalized. The project has been introduced to administrators and providers at four demonstration sites. A detailed implementation protocol is to be reviewed and approved prior to implementation.

Preventive Health Services for Medicare Beneficiaries: Demonstration and Evaluation

Project No.:	95-C-99162/3-01
Period:	May 1988–April 1992
Funding:	$ 1,320,000
Award:	Cooperative Agreement
Awardee:	The Johns Hopkins University School of Hygiene and Public Health 624 North Broadway Baltimore, Md. 21205
Project Officer:	Sherrie L. Fried Division of Health Systems and Special Studies

Description: The demonstration will provide preventive services to a representative population of Medicare beneficiaries residing in the eastern half of Baltimore City. After a baseline interview, covering areas of health status, risk, and sociodemographics, the population will be randomly assigned to either an intervention or control group. The preventive services screening and intervention will be performed by the beneficiary's own physician. Johns Hopkins University will also be conducting a comprehensive evaluation to assess the cost effectiveness of providing preventive services.

Status: The project is in its planning phase. Activities to date have focused on the development of instruments and procedures for the baseline survey of beneficiaries, the design and compilation of materials for the provider orientation sessions, and sample selection. Work has begun to categorize providers by type so that plans can be made for the clinician orientation sessions and the sampling plan can be implemented. A detailed implementation protocol is to be reviewed and approved prior to implementation.

Preventive Health Services for Medicare Beneficiaries

Project No.:	95-C-99159/3-01
Period:	May 1988–April 1992
Funding:	$ 1,300,000
Award:	Cooperative Agreement
Awardee:	University of Pittsburgh Department of Epidemiology 130 Desoto Street Pittsburgh, Pa. 15261
Project Officer:	Spike Duzor Division of Health Systems and Special Studies

Description: The demonstration will provide preventive services to Medicare beneficiaries residing in rural counties in western Pennsylvania. Potential demonstration participants will receive an in-home health-risk appraisal and then be randomly assigned into two treatment groups and one control group. The treatment groups will include beneficiaries receiving services at clinics and

physician offices. The University of Pittsburgh will conduct a comprehensive evaluation to assess the cost effectiveness of providing preventive services.

Status: This project is in the planning phase. Activities to date include: developmental work on the baseline survey, health-risk appraisal procedure, and enrolling health providers. This project is scheduled to begin in early 1989. A detailed implementation protocol is to be reviewed and approved prior to implementation.

Preventive Health Services for Medicare Beneficiaries, San Diego Demonstrative Project

Project No.:	95-C-99160/9-01
Period:	May 1988-April 1992
Funding:	$ 1,160,000
Award:	Cooperative Agreement
Awardee:	San Diego State University Foundation Graduate School of Public Health San Diego State University San Diego, Calif. 92182-1900
Project Officer:	Spike Duzor Division of Health Systems and Special Studies

Description: Medicare patients who are currently enrolled in the Secure Horizons health maintenance organization will be targeted for preventive services. Approximately 2,400 enrollees will be randomly assigned to either a treatment or control group. The San Diego School of Public Health will conduct a comprehensive evaluation to assess the cost effectiveness of providing preventive services.

Status: This project is in the planning phase. Activities include finalizing the health-assessment instruments and the patient recruitment process. The detailed implementation protocol is to be reviewed and approved prior to implementation.

University of California, Los Angeles, Medicare Prevention Demonstration

Project No.:	95-C-99165/9-01
Period:	May 1988-April 1992
Funding:	$ 1,327,500
Award:	Cooperative Agreement
Awardee:	University of California School of Public Health 405 Hilgard Avenue Los Angeles, Calif. 90024-1406
Project Officer:	Spike Duzor Division of Health Systems and Special Studies

Description: Medicare beneficiaries who are current patients of the University of California, Los Angeles (UCLA) university-based clinic will be targeted for preventive and dental referral services. Approximately 1,600 patients will be randomly assigned to either a treatment or control group. UCLA will also conduct a comprehensive evaluation to assess the cost effectiveness of providing preventive services.

Status: This project is in the planning phase. Activities to date include development of health appraisals and patient surveys. This demonstration is scheduled to begin in early 1989. A detailed implementation protocol is to be reviewed and approved prior to implementation.

Cross-Cutting Evaluation of Medicare Prevention Demonstrations

Project No.:	500-87-0030
Period:	July 1988-April 1992
Funding:	$ 299,000
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Awardee:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02138
Project Officer:	Spike Duzor Division of Health Systems and Special Studies

Description: Abt Associates is conducting a cross-cutting evaluation of the five Medicare prevention demonstrations mandated by Public Law 99-272, the Consolidated Omnibus Budget Reconciliation Act of 1985. In May 1988, the Health Care Financing Administration awarded cooperative agreements to the following five institutions to implement the demonstration:

- Johns Hopkins University, School of Hygiene and Public Health.
- San Diego State University, School of Public Health.
- University of California at Los Angeles, School of Public Health.
- University of Pittsburgh, School of Public Health.
- University of Washington, School of Public Health and Community Medicine.

This study will use data from all five demonstration projects to assess the feasibility of providing preventive services to Medicare beneficiaries.

Status: The demonstration is scheduled to begin in early 1989. Abt Associates has been working closely with all the sites to ensure that comparable data will be collected to assess the health status of clients at the beginning of the project and to track all health care expenditures. An interim report of findings will be available in mid-1991. A final report is expected by Summer 1992.

Study of Medicare Coverage of Influenza Vaccine Demonstration and Evaluation

Project No.:	HCFA-86-016/JD
Period:	July 1988-October 1990
Funding:	$ 693,694
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Awardee:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Mass. 02139

Project Officer: John F. Meitl
Division of Health Systems and Special Studies

Description: Section 4071 of the Omnibus Budget Reconciliation Act of 1987 mandates a study to determine the cost effectiveness of furnishing an influenza vaccination as a Medicare-covered benefit. To implement this study, demonstration projects are being funded in nine sites. This contract is to provide assistance to the demonstration sites implementing the demonstration and to prepare a descriptive evaluation of the demonstration. Abt is also involved in ensuring that appropriate data collection activities take place so that an evaluation contractor, to be selected at a later date, will be able to conduct the cost-effectiveness analysis.

Status: The contractor has prepared a minimum data set to be collected from beneficiaries who are vaccinated, a systems notice for data collection, and a survey instrument to estimate immunization rates in the experimental and comparison sites. Abt has also provided technical assistance to all demonstration sites on the selection of comparison sites and data collection issues. Seven of the nine demonstration sites were awarded with a start date of October 20, 1989. The remaining two sites were awarded by November 10, 1989.

The Utilization and Evaluation (Effectiveness and Cost Effectiveness) of Pneumococcal Vaccine in the Medicare Program

Funding: Intramural
Project Officer: Marshall McBean
Division of Beneficiary Studies

Description: Pneumococcal vaccine is recommended by the Immunization Practice Advisory Committee (IPAC) of the Public Health Service for all people 65 years of age and over, and Medicare has reimbursed for this preventive service since July 1981. The national goal is to immunize 60 percent of Medicare beneficiaries by the year 1990. The current immunization level is estimated to be approximately 10 percent. In 1985, Medicare reimbursed for the administration of almost 460,000 doses of vaccine and there were approximately 1,750,000 new Medicare enrollees. Although the vaccine is recommended by IPAC, one randomization control trial published in 1986 and one unpublished study, both done on Veterans Administration beneficiaries, have questioned the effectiveness of the vaccine. The project will describe vaccine utilization as well as the effectiveness and cost effectiveness of the vaccine in Medicare beneficiaries.

- Part 1 will describe the utilization of pneumococcal vaccine in Medicare beneficiaries in 1985 using the Part B Medicare annual data (BMAD) procedure and beneficiary files and the health insurance skeleton eligibility write-off (HISKEW) file. The characteristics of immunized and unimmunized beneficiaries will be examined, as well as those of the providers of the vaccine, to identify ways of increasing coverage.
- Part 2 will be a case-control study of the effectiveness and the cost effectiveness of pneumococcal vaccine using all Medicare provider analysis and review (MEDPAR) reported cases of pneumococcal bacteremia and pneumococcal pneumonia in the United States as the outcome.
- Part 3 will evaluate the effectiveness and cost effectiveness of a pneumococcal vaccine program administered by county health departments in collaboration with the Baltimore County Health Department and the Johns Hopkins Center on Aging.
- Part 4 will evaluate the effectiveness of the proposed statewide pneumococcal vaccine program in the State of Hawaii in reducing morbidity and hospital costs following pneumococcal pneumonia.

Status: Major project activities include:

- Part 1—Data are being obtained from the Health Care Financing Administration data files and being analyzed.
- Part 2—No further progress.
- Part 3—Over 10,000 Medicare beneficiaries received either pneumococcal vaccine or influenza vaccine in 1987–88 in county-sponsored clinics in Baltimore, Anne Arundel, Carroll, Harford, and Howard counties, Maryland. Approximately 1,900 received pneumococcal vaccine. The entire population is being followed for hospitalizations because of various categories of pneumonia.
- Part 4—The State of Hawaii began its 4-month pneumococcal vaccine immunization program on the island of Oahu on September 1 with excellent initial participation by beneficiaries. As a result of the excellent community health education coverage, physicians and clinics are actively encouraging their patients to be immunized in their private offices.

Preventive Health Care for Medicaid Children: Relative Factors and Costs

Project No.: 18-C-98897/5-01
Period: October 1986–March 1989
Funding: $ 197,000
Award: Cooperative Agreement
Awardee: American Academy of Pediatrics
144 Northwest Point Boulevard
P.O. Box 927
Elk Grove Village, Ill. 60007
Project Officer: Martin Ruther
Division of Program Studies

Description: This project will study preventive care received by children under the Medicaid program. In addition, data from the early and periodic screening, diagnosis, and treatment (EPSDT) program will be used. The study will use a sample of children continuously enrolled in Medicaid during 1981 in the State of California. Differences in quantities and types of preventive services by client, organizational, and policy variables will be identified. For all children continually enrolled in Medicaid from 1981 through 1984, the impact of different types of preventive services received in 1981 on utilization, costs of care, and

some quality measures in 1982, 1983, and 1984 will be studied. The source of Medicaid data will come from the Health Care Financing Administration's Tape-to-Tape project and the State EPSDT system.

Status: This project was funded in October 1986. Computer processing of data from the Medicaid Tape-to-Tape project and EPSDT files has been completed. Analyses of the data is under way. The American Academy of Pediatrics has received an extension through March 31, 1989 to complete the project.

Health Care Services for Children Under Medicaid

Project No.:	18-P-98011/3-02
Period:	August 1981-December 1989
Funding:	$ 504,311
Award:	Grant
Grantee:	Johns Hopkins University School of Medicine Department of Pediatrics 720 Rutland Avenue Baltimore, Md. 21205
Project Officer:	Benson L. Dutton Division of Reimbursement and Economic Studies

Description: This is a grant for a comparative study of health care services for children by using billing claims and eligibility data files from the State of Maryland. The grantee seeks information on the cost and effectiveness of services for children eligible for the Medicaid early and periodic screening, diagnosis, and treatment program. Data on the costs and utilization of services for children using private practitioners, hospital clinics, emergency rooms, and various combinations of delivery systems serve as the basis for this analysis.

Status: Using the data files for the Johns Hopkins Hospital Title V Children and Youth Clinic, use of services by Medicaid and self-pay patients have been compared. Within an organized program, differences were small. The implications of these findings were explored, particularly in light of other studies. Services for children with asthma were studied in the Children and Youth Project and in the middle-class population of the Columbia, Maryland Medical Plan. Services were far more numerous and thus, more costly for the children and youth Medicaid population than for Columbia. The monitoring of Medicaid services, including diagnosis-specific studies for other chronic and acute problems, with cost containment as the goal, will be tested against the large State Medicaid file. A final report is expected Winter 1989.

Subacute and Long-Term Care

Alternative Payment and Delivery

Comparative Study of State Approaches to Long-Term Care System Reform

Project No.:	18-C-97923/3-04
Period:	October 1984-January 1988
Funding:	$ 199,826
Award:	Cooperative Agreement
Awardee:	National Governors' Association Center for Policy Research Hall of States 444 North Capitol Street Washington, D.C. 20001-1572
Project Officer:	Leslie N. Saber Division of Long-Term Care Experimentation

Description: The Health Care Financing Administration and the Office of the Assistant Secretary for Planning and Evaluation cosponsored this study by the National Governors' Association. The purpose of the study was to compare and assess the strategies employed by six States (Arkansas, Illinois, Maine, Maryland, Oregon, and Wisconsin) to consolidate their authority over the long-term care services system so that resources can be more rationally allocated between institutional and community settings. The study examined how States are capitalizing on existing system flexibilities, what policy and programmatic issues must be overcome to achieve State goals, and what State practices seem most effective in achieving system change. It is anticipated that the results will be valuable for future State policy development and could also identify approaches that would support the development of new solutions to long-term care problems.

Status: The National Governors' Association has completed the final report for this project entitled, "State Long-Term Care Reform: Development of Community Care in Six States." Copies of the report may be obtained from the National Governors' Association, (202) 624-7880.

Evaluation of "Life-Continuum of Care" Residential Centers in the United States

Project No.:	18-C-98672/1-03
Period:	January 1985-May 1989
Funding:	$ 832,871
Award:	Cooperative Agreement
Awardee:	Hebrew Rehabilitation Center for the Aged 1200 Centre Street Boston, Mass. 02131
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The objective of this 3-year project is to obtain information about the characteristics of continuum of care residential center (CCRC) facilities and their residents and compare them with elderly residents living in the community, with respect to quality of life and health, service costs, and utilization. Data will be gathered from 20 CCRC's in four areas: California, Arizona, Florida, and Pennsylvania. These sites will be stratified according to the type of contract offered (extended versus limited), the age of the facility, and the income level of those enrolled. Three types of CCRC residents will be selected from the sites for

the study sample: new admissions (580), existing residents, both short- and long-stay residents (1,640), and residents who died just prior to or during the field data gathering period (660). Quality of life and service utilization data will be gathered at two points in time, at baseline and 12 months later. Three types of comparison samples will be employed:

- A representative sample of elderly in their own homes or independent apartments (2,422).
- A national sample of elderly living in congregate housing settings (2,350).
- A representative sample of elderly who have died and for whom retrospective data are available for their last year of life (1,500).

Status: Baseline interviews of CCRC residents and managers have been completed; post-test and death followup interviews of residents are almost complete. Fiscal and organizational data concerning CCRC facilities have been collected. Prices are being estimated for medical and long-term care services.

Design, Implementation, and Evaluation of a Prospective Case-Mix System for Nursing Homes in Massachusetts

Project No.:	11-C-98924/1-01
Period:	August 1986-December 1989
Funding:	$ 362,312
Award:	Cooperative Agreement
Awardee:	Massachusetts Department of Public Welfare Medical Assistance Division 600 Washington Street Boston, Mass. 02116
Project Officer:	Dana B. Burley Division of Long-Term Care Experimentation

Description: This project will design, implement, and evaluate a prospective case-mix system for a random sample of nursing homes in Massachusetts. This payment system will develop and test incentives for these nursing homes to admit and treat heavy-care patients while minimizing declines in quality of care. Experimental facilities will be compared with facilities that will continue to be reimbursed under the present system. A minimum of 18 experimental and 16 control homes will participate. The system will modify four of seven components of the nursing home reimbursement system currently used in the State. For demonstration facilities, nursing services payment will be case-mix adjusted using "management minutes." Incentives to admit and treat heavy-care patients will be used to further modify the nursing cost center. Various financial incentives will also be used to reduce other "controllable" operating costs.

Status: The cooperative agreement was awarded in August 1986. During the first 2 years, project staff finalized aspects of the proposed payment system, assigned volunteer nursing homes to the experimental and control groups, and improved their quality-assurance mechanisms. Implementation of the case-mix system commenced October 3, 1988 for 1 experimental year. Development of quality assurance indicators using this case-mix data base is in progress during the implementation year. Statewide implementation will be evaluated based on the demonstration results.

New York State Case-Mix, Prospective Reimbursement System for Long-Term Care

Project No.:	11-C-98325/2-03
Period:	August 1983-January 1987
Funding:	$ 416,012
Award:	Cooperative Agreement
Awardee:	New York State Department of Social Services 40 North Pearl Street Albany, N.Y. 12243
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: The New York State Department of Social Services was awarded a Section 1115 grant, effective August 7, 1983, to develop, test, and refine a long-term care prospective payment system based on clusters of patient characteristics. This 3-year cooperative agreement was conducted by the New York State Department of Health and Rensselaer Polytechnic Institute. The system builds on the results of research conducted at Yale University, which developed clusters of patients in relation to staff resources used (resource utilization groups or RUG's). The purpose of the project is to promote efficiency by associating payment levels with patient characteristics that indicate the amount of actual resources used by patients.

Status: During the first year, RUG's were revised and tested. The result is a classification system (RUG's II) that accounts for 52 percent of the variance of nursing and other staff resources used by patients. RUG's II uses five clinical groupings and an activities-of-daily-living sum to develop 16 distinct resource utilization groupings. During the second year, the case-mix "weight" for each of the groups was developed. A short patient-review form was designed and tested along with an audit process. The payment system includes:

- A price-based payment system with two major components, one of which is patient care. A 25-percent corridor was established the first year to ease the transition from a cost-based to a price-based system. This corridor will be phased-out over several years.
- A system to review all patients in a facility every 6 months and all new admissions quarterly.
- A concurrent audit system.

This system was implemented statewide in January 1986. All long-term care facilities have been reviewed five times now for ratesetting purposes. The case-mix index (CMI) for long-stay residents was 0.92 in 1985 and 0.96 in August 1986. The CMI for new admissions was 0.96 in 1985 and 1.07 in August 1986. This demonstrates that the incentives are working relatively well, with facilities admitting heavier care

patients but holding long-stay residents at a stable level of function. During the first year of operation, only 22 of 600 facilities lost delegated authority to do their own resident assessments. The RUG's II have been compared with three other case-mix measures, and researchers have reported 93 percent agreement between the data sets. An initial evaluation of the system has concluded that:

- Facilities were following the incentives in the system to admit heavier care patients. Those facilities that had been in more negative situations based on their previous expenditure and case mix had undertaken the most significant increases in case mix.
- Concerns that facilities would be unable to alter their practices to adjust to the new system seem unfounded based on the ability of "adaptive" facilities.
- Therapy services increased at a greater rate than other services, consistent with the incentives in the system.
- Facilities were aligning their expenditures with the requirements and incentives of the new system. As a result, there was a net improvement in relative financial positions, even of the facilities within the study who had previous costs in excess of the level predicted by case mix. Also, concerns that the quality of care in facilities would decline appeared unfounded as there was an overall improvement in the outcomes of the quality assurance processes.

The project was completed in January 1987. A draft of the final report has been submitted and is being reviewed.

Texas Long-Term Care Case-Mix Reimbursement Project

Project No.:	11-C-98688/6-03
Period:	September 1984-January 1988
Funding:	$ 293,803
Award:	Cooperative Agreement
Awardee:	Texas Department of Human Services 701 West 51st Street Austin, Tex. 78769
Project Officer:	Elizabeth S. Cornelius Division of Long-Term Care Experimentation

Description: The Texas Department of Human Services was awarded a 4-year cooperative agreement, effective September 30, 1984, to develop and test a prospective case-mix payment methodology for long-term care facilities. Case-mix payment involves assessment of patient characteristics associated with various patterns of service needs and payment at a rate appropriate to that need. The case-mix payment methodology will reflect institutional case mix and the associated costs of service. The purpose of the project is to develop a more equitable payment system for long-term care providers than the current flat-rate system for reimbursement of skilled nursing and intermediate care facilities services. The project built on the results of research conducted in the State of New York. It includes:

- Two data collections of patient characteristics and staff-time measurement for 2,000 patients each.
- Analysis of long-term care systems in Illinois, Minnesota, Maryland, New York, and West Virginia, using the Texas data base.
- Simulation of various case-mix classifications systems using AUTOGRP.
- Determination of the best classification method for Texas and the development of a payment system.
- Identification of problems and options for their solutions in implementing a case-mix payment system.

Status: The first year the State staff met extensively with the other States working on case mix. They conducted a conference of researchers and State representatives interested in case mix to review patient-assessment instruments, determine the most appropriate patient descriptors, and discuss issues involved in developing payment systems. A comparative chart of the six States' assessment instruments was developed and 100 descriptors and scales were studied. A report of the conference was prepared. In the second year, the State developed a client assessment and research evaluation tool and a staff-time measurement process. The first data collection was completed in March 1986. A patient-specific data base was created of descriptors and direct staff-time utilization for 1,997 patients. The interrater reliability between the facility primary nurse assessor and the outside nurse auditor was 95.6 percent overall (the activities-of-daily-living scales agreement was 86.3 percent and the psychosocial and behavioral descriptors agreement was 92 percent). The State has done a comparison of direct staff time to resource utilization groups (RUG's) II categories and found that the relative index scores match the New York index well, both in proportion of patients in each group and relative staff time. Other analyses of case-mix classification systems found the following variance reductions for direct care staff time: Texas level of care, 18.3 percent; Maryland, 33.3 percent; Katz activities of daily living scale, 35.3 percent; RUG's activities of daily living scale, 36.7 percent; Minnesota case-mix system, 36.9 percent; New York RUG's II, 41.9 percent; and Texas index of level of effort, 44.6 percent. The second data collection was completed in Summer 1987. The State has developed the payment methodology to accompany the classification system and it has been accepted by the industry and the Commissioner. A draft of the final report is expected Winter 1988.

Texas Nursing Home Case-Mix Demonstration

Project No.:	11-P-99131/6-01
Period:	September 1987-September 1990
Fund:	$ 371,873
Award:	Cooperative Agreement
Awardee:	State of Texas Department of Human Services P.O. Box 2960 (MC-234-E) Austin, Tex. 78769

Project Officer: Elizabeth S. Cornelius
Division of Long-Term Care Experimentation

Description: The Texas Department of Human Services will conduct a 3-year demonstration to implement and evaluate a Medicare/Medicaid prospective case-mix payment system. The payment system will be based on the Health Care Financing Administration (HCFA)-sponsored feasibility studies. The major Medicaid objectives of the project are:

- To match payment rates to resident need.
- To promote the admission of heavy care patients to nursing homes.
- To provide incentives to improve quality of care.
- To improve management practices.
- To demonstrate administrative feasibility of the new system.

The objective for Medicare is to develop and pilot test administrative processes for implementing a Medicare prospective payment system based on a resource utilization group system in coordination with Medicaid case-mix systems. The State will use a quasi-experimental design for the Medicare pilot test to compare the effect of introducing case-mix payment in an experimental catchment area versus continuing the cost-based system in a control catchment area. The State will use a pre-post design for the Medicaid system. The case-mix classifications are based on a review of six different systems in which the New York resource utilization group's (RUG's) II explained the greatest variance of staff time. The case-mix indexes borrow major elements of the RUG's II system and some of the rationale from the Minnesota system. The Texas Index of Level of Effort (TILE) uses four clinical groups to form clusters and develops subgroups using an activities-of-daily-living (ADL) scale. The index that will be used for the classification of Medicare patients is the RUG–T18, which uses the same clinical groups and ADL scale that are used in the New York RUG's–II system. The difference occurs in the expanded rehabilitation groups for Medicare patients. Two third-party evaluations will be used, one of data reliability and a second of the validity of the data analyses methods.

Status: During the first year, the TILE and RUG–T18 indexes have been reviewed for compatibility. The RUG–T18 classification was reviewed and operationalized to match the HCFA Medicare coverage guidelines published in 1987. Cost analysis of both national and State samples of Medicare providers were performed to arrive at baseline costs for calculating the rates for the RUG–T18 groups. The Texas client assessment, review, and evaluation instrument has been reviewed and revised. It was pilot tested in the Austin area and achieved a high reliability score on the case-mix variables. This instrument contains all the ratesetting variables for both Medicare and Medicaid. The Texas utilization review process will expand to include more frequent reviews for new admissions, prior authorization of Medicare stays, and classifications of individual patients into RUG–T18 groups. The demonstration is scheduled to become operational in April 1989.

Longitudinal Study of the Impact of Prospective Reimbursement Under Medicaid on Nursing Home Care in Maine

Project No.: 18–C–98307/1–03
Period: June 1983–June 1987
Funding: $ 541,578
Award: Cooperative Agreement
Awardee: University of Southern Maine
Human Services Development Institute
246 Deering Avenue
Portland, Maine 04102
Project Officer: Judith A. Sangl
Division of Reimbursement and Economic Studies

Description: This project studies the nursing home prospective reimbursement system recently implemented in Maine. The study will provide a longitudinal evaluation of the design and implementation of the system for intermediate care facilities in the State and of the system's effectiveness in achieving the policy goals of containing costs, maintaining or improving quality, and ensuring access to nursing home care by Medicaid recipients. The study consists of three major components:

- An impact analysis of the effects of prospective reimbursement on costs, quality, and access.
- A case study of the politics of the implementation of prospective reimbursement.
- An analysis of organizational and management response of nursing home administrators to the changes resulting from prospective reimbursement.

The hypotheses of the study are closely tied to the objectives of recently passed reimbursement legislation that includes incentives for maintaining and increasing a Medicaid patient load. The awardee will try to measure immediate versus long-term effects of the new system on costs to the State.

Status: Significant study findings include:

- A reduction in total variable costs per patient day of $3.03 by the third year, controlling for other factors (e.g., case mix, quality, and facility characteristics).
- Cost efficiencies appear to be achieved in reducing room and board costs more so than patient care costs despite the lack of policy restrictions on where efficiencies can be achieved.
- A declining interest or ability for homes to operate within their prospectively determined rates is observed by the third prospective payment year.
- There appears to be no significant impact on nursing home profitability as captured by operating margin—the ratio of net operating income to total operating revenue.
- Key determinants of nursing home costs include: profit/non-profit status, bed size, occupancy rate, Medicaid share of patient days, and nursing home bed supply.
- Access to care for Medicaid recipients as captured by the rates of Medicaid days to total patient days declined by 5.5 percent by the third payment year.

- No significant impact on case mix of nursing home residents was observed as measured by this study's primary case-mix variables.
- Key determinants of increased access and more difficult case mix include: non-profit status, smaller facilities, hospital's affiliation, and facilities in areas with higher bed supplies per population 65 years of age and over.
- No significant impact was observed on structural and outcome quality of care measures developed for this study.
- The process measure of quality of care, nursing hours per patient day was reduced by almost 15 minutes per patient day by the third prospective year. System incentives to increase occupancy without increasing nursing inputs on care appear to be the significant contributor to this finding.

The final report was received in early 1988.

Analysis of Long-Term Care Payment Systems

Project No.:	18-C-98306/8-04
Period:	April 1983-December 1988
Funding:	$ 1,394,293
Award:	Cooperative Agreement
Awardee:	Center for Health Services Research University of Colorado 1355 South Colorado Boulevard, Suite 706 Denver, Colo. 80222
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: This project is a comparative analysis of long-term care reimbursement systems in seven States (Colorado, Florida, Maryland, Ohio, Texas, Utah, and West Virginia). The study will combine an empirical analysis of nursing home costs and payments and the determinants of costs with a detailed qualitative analysis of the operations of the reimbursement systems. The comparative analysis across States will be performed through a unique "comparison-by-substitution" method that calculates reimbursement for nursing homes in one State under the assumption that the other States' reimbursement systems are in effect. Data sources for this study include primary facility information and patient samples, as well as secondary sources such as cost reports.

Status: Major project activities include:

- Collection of updated information on the study States' nursing home reimbursement methodologies or capital payment methodologies and of socioeconomic information about the communities in which the study facilities are located.
- Collection of Medicaid cost-report and payment-rate information for facilities.
- Completion of data collection and data entry for the basic sample of 144 facilities in six States and for the augmented samples (hospital-based, high Medicare, and case-mix change).
- Analyses of case-mix differences across States, types of reimbursement systems (class rates, facility specific, and case mix), and facilities (profit, nonprofit, urban, and rural), using data from the basic sample.
- Further development of and testing of the comparison by substitution model. It has been refined to analyze more directly the resources used (in terms of registered nurse, licensed practical nurse, and aide staff hours) under different case-mix systems. Procedures have been developed to adjust for input price differences among facilities, both within and across States.

The following reports have been prepared:

- "Case-Mix Measures and Medicaid Nursing Home Payment-Rate Determination in West Virginia, Ohio, and Maryland."
- "Overview of Medicaid Nursing Home Reimbursement Systems."
- "Case-Mix and Capital Innovations in Nursing Home Reimbursement."
- "An Analysis of Long-Term Care Payment Systems: Research Design."
- "Medicaid and Non-Medicaid Case-Mix Differences in Colorado Nursing Homes."
- "Case-Mix Reimbursement for Nursing Home Services: A Three-State Simulation Model."
- "Case Mix in Connecticut Nursing Homes: Medicaid Versus Non-Medicaid, Profit Versus Non-Profit, and Urban Versus Rural Patient Groups."
- "A Methodology to Examine Nursing Home Profits."
- "Case-Mix Reimbursement for Colorado Nursing Homes."
- "Administering Case-Mix Reimbursement Systems: Issues of Assessment, Quality, Access, Equity, and Cost."

A final report is expected late 1988.

On Lok's Risk-Based Community Care Organization for Dependent Adults

Project No.:	95-P-98246/9-05 11-P-98334/9-05
Period:	Novermber 1983-Indefinitely
Award:	Grant
Grantees:	On Lok Senior Health Services 1441 Powell Street San Francisco, Calif. 94133 California Department of Health Services 714-744 P Street Sacramento, Calif. 95814
Project Officer:	Dina El-Ani Division of Long-Term Care Experimentation

Description: In response to the congressional mandate of Section 603(c)(1) and (2) of Public Law 98-21, the Social Security Amendments of 1983, the Health Care Financing Administration granted Medicare waivers to the On Lok Senior Health Services and Medicaid

waivers to the California Department of Health Services. Together these waivers permitted On Lok to implement an at-risk, capitated payment demonstration in which more than 300 frail elderly persons, certified by the Department of Health Services for institutionalization in a skilled nursing facility, are provided a comprehensive array of health and health-related services in the community. The current demonstration maintains On Lok's comprehensive community-based program but has modified its financial base and reimbursement mechanism. All services are paid for by a predetermined capitated rate from both Medicare and Medicaid (Medi-Cal). The Medicare rate is based on the average per capita cost for the San Francisco county Medicare population. The Medi-Cal rate is based on the State's computation of current costs for similar Medi-Cal recipients using the formula for prepaid health plans. Individual participants may be required to make copayments, spend down income, or divest assets, based on their financial status and eligibility for either or both of the programs. On Lok has accepted total risk beyond the capitated rates of both Medicare and Medi-Cal with the exception of the Medicare payment for end stage renal disease. The demonstration provides service funding only under the waivers. The research and development activities are funded through private foundations.

Status: Section 9220 of the Consolidated Omnibus Budget Reconciliation Act of 1985 has extended On Lok's Risk-Based Community Care Organization for Dependent Adults indefinitely, subject to the terms and conditions in effect as of July 1, 1985, except that requirements relating to data collection and evaluation do not apply.

Respite Care Co-Op for Impaired Elderly

Project No.:	18-C-98398/5-03
Period:	1983 December 1986
Funding:	$ 128,880
Award:	Cooperative Agreement
Awardee:	Southcentral Michigan Commission on Aging 8135 Cox's Drive, Suite 1-C Portage, Mich. 49002
Project Officer:	Donald Sherwood Division of Long-Term Care Experimentation

Description: This study developed a model cooperative to provide respite to aid family caregivers of impaired elderly. Family members paid for care received with care given. The objective was to study a model cooperative designed to prevent exhaustion of family members, to eliminate the need for more intensive and/or expensive care, and to prevent unnecessary institutionalization of the elderly.

Status: This project is completed and has reinforced previous studies that have found that respite is a valuable but underutilized service that caregivers need to be taught to use. Additional findings include:

- The respite care co-op serves a relatively narrow band of caregivers and can be an attractive option as long as it is not the only available option.
- The success of recruitment depends on intensive and extensive marketing.
- Cooperation of members of the medical profession is essential because they are frequently the only service providers with whom the families have contact.
- Cooperation with other services, such as transportation and senior centers, can encourage participation.
- An awareness and sensitivity on the part of the coordinator to the dynamics of family caregiving is essential.
- Cost can be maintained at a low level per hour only when the co-op(s) have a high rate of care exchange.

The final report entitled, "Elder Care Share—A Respite Care Cooperative," is available from the National Technical Information Service, accession number PB87-187340/AS.

New Jersey Respite Care Pilot Project

Project No.:	11-P-99333/2-01
Period:	July 1988-September 1990
Award:	Grant
Grantee:	New Jersey Department of Human Services 222 South Warren Street Trenton, N.J. 08625
Project Officer:	Dennis M. Nugent Division of Long-Term Care Experimentation

Description: The New Jersey Respite Care Pilot Project was established to help individuals care for elderly and disabled family members who are at risk of institutionalization by providing services and support needed by both care recipients and caregivers. The purpose of the study is to determine the extent to which the provision of respite care services will delay or avert institutional placement and enhance and sustain the role of the family in providing long-term care services. All of New Jersey's 21 counties are participating in the program. The respite care services provided under this project include short-term and intermittent companion services; homemaker, home health aides, and personal care services; adult day care; and inpatient respite in a hospital or nursing home. Services are available on a planned or emergency basis. In addition to these services, peer support, training, and counseling are provided to family caregivers.

Status: The Health Care Financing Administration originally was directed to approve this project by the Omnibus Budget Reconciliation Act of 1986. New Jersey did not implement the project after the passage of the authorizing legislation because of a provision that required all participants to be Medicaid-eligible. The project's eligibility criteria were later amended by the Omnibus Budget Reconciliation Act of 1987 to provide authorization for the program to include a non-Medicaid population; after this change the program was implemented on July 1, 1988.

Assess (State) Tax Incentives as a Means of Strengthening the Informal Support System for the Elderly

Project No.:	99-C-98410/9-03
Period:	September 1983-December 1987
Funding:	$ 600,086
Award:	Cooperative Agreement
Awardee:	Center for Health and Social Services Research 155 South El Molino Pasadena, Calif. 91101
Project Officer:	Sherry A. Terrell Division of Reimbursement and Economic Studies

Description: The purpose of this project was to study selected State (Arizona, Idaho, Iowa, and Oregon) tax incentive programs that were believed to stimulate the informal caregiver system and reduce either current or anticipated demands on the formal long-term care system. This study collected primary data for 1982-84 in Idaho and Arizona from tax preparers, policymakers, long-term care gatekeepers, and taxpayers, and analyzed information about the elderly dependent for whom a deduction or credit was taken. The programs of Oregon and Iowa are briefly described, and types of tax incentive programs in use and being proposed in other States are catalogued.

Status: The final report was received mid-1988. Characteristics of the Idaho and Arizona study populations are compared with the study population of the 1982 National Long-Term Care Survey and a Massachusetts frail elderly study population. The tax study findings were that a rational relationship exists between the design of the tax incentive programs and service environment outcomes; and tax incentives appeared to induce friends and families to provide a greater amount of the service needed by the frail elderly. However, incentives may redistribute a portion of the subsidies for long-term care from the welfare population to others. Study data were inadequate to determine whether the induced informal help and expenditures for formal health care services substitutes for public expenditures. The final report entitled, "State Tax Incentive Programs for Informal Caregivers and the Elderly" is available from the National Technical Information Service, accession number PB88-236724/AS.

Modifications of the Texas System of Care for the Elderly: Alternatives to the Institutionalized Aged

Project No.:	11-P-97473/6-10
Period:	January 1980-December 1989
Award:	Grant
Grantee:	Texas Department of Human Resources 701 West 51st Street P.O. Box 2960 Austin, Tex. 78769
Project Officer:	Phyllis A. Nagy Division of Long-Term Care Experimentation

Description: The purpose of this project is to reduce the growth of nursing homes in Texas and, at the same time, expand access to community care services for needy Medicaid individuals. It is being accomplished by directly changing the operating policies of the State's Title XIX and Title XX programs—specifically, by eliminating the State's lowest level of institutional care, intermediate care facility (ICF)-II. Existing organizations responsible for the State's Title XIX and Title XX programs are responsible for project implementation.

Status: Substantial progress has been made in achieving project objectives. In March 1980, there were 15,486 individuals in the ICF-II group. As of December 1987, there were 1,235 ICF-II clients remaining. From March 1980 to December 1987, the total institutional population also decreased from 64,820 to 55,425 clients (a reduction of 14.3 percent), although the community-care population has grown from 30,792 to 52,460—an increase of slightly more than 70 percent. This project was scheduled to terminate on December 31, 1988. However, a 1-year extension (through December 1989) is required by the Medicare Catastrophic Coverage Act of 1988, Public Law 100-360.

Continued Demonstration of a Long-Term Care Center Through Inclusion and Expansion of Title XVIII

Project No.:	95-C-97254/2-05
Period:	August 1980-June 1988
Funding:	$ 3,010,375
Award:	Cooperative Agreement
Awardee:	Monroe County Long-Term Care Program, Inc. 349 W. Commercial Street, Suite 2250 East Rochester, N.Y. 14445
Project Officer:	Pete Rhodes Division of Long-Term Care Experimentation

Description: The purpose of this demonstration is to expand the alternative long-term care delivery model, Assessment for Community Care Services (ACCESS), originally developed for the Medicaid population in Monroe County, New York, to include the county's Medicare population. The project worked toward an integration of Medicare and Medicaid long-term care services and attempted to bring about more cost-effective use of institutional and community long-term care services.

Status: The demonstration began operations in October 1982. More than 10,000 Medicare beneficiaries with potential long-term care needs received assessments during the project, which completed its operational phase in May 1986. An evaluation of the demonstration was conducted by Berkeley Planning Associates, Inc. In general, the evaluation found that the program did not reduce total health care expenditures. This project subsequently was extended to permit development of a pilot project for targeted case management of those chronically ill Medicare beneficiaries most at risk of incurring multiple hospital

admissions. Once the pilot design was completed, however, the Health Care Financing Administration decided not to fund an operational phase. This cooperative agreement ended on June 30, 1988.

Report to Congress: Identifying Individuals At Risk of Institutionalization

Project No.:	HHS-100-85-0171
Period:	September 1985-October 1986
Funding:	$ 227,316
Award:	Contract
Contractor:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543-2393
Project Officer:	Leslie N. Saber Division of Long-Term Care Experimentation

Description: The evaluation of the National Long-Term Care Channeling Demonstration produced an extensive data base including client and informal support characteristics and cost and utilization information on the 6,341 participants. Further analysis of the data was undertaken by Mathematica Policy Research, Inc., to identify clients who are at risk of institutionalization who could be treated more cost effectively with community-based services. This study was mandated by The Orphan Drug Act (Public Law 97-414), passed by Congress in 1983. In addition to the channeling data, Mathematica reviewed the findings of other studies to examine predictors of institutionalization.

Status: A Report to Congress describing the study findings was submitted to Congress in October 1987.

Evaluation Design for Medicare Alzheimer's Disease Demonstration

Project No.:	500-87-0028-4
Period:	October 1987-January 1989
Funding:	$ 428,786
Award:	Technical Support: Evaluation of Demonstrations (See page 67)
Contractor:	Mathematica Policy Research, Inc. P.O. Box 2393 Princeton, N.J. 08543
Project Officer:	Dennis M. Nugent Division of Long-Term Care Experimentation

Description: Section 9342 of Public Law 99-509, the Omnibus Budget Reconciliation Act of 1986, requires the Secretary to conduct at least 5 (and not more than 10) demonstration projects to determine the effectiveness, cost, and impact of providing comprehensive services to Medicare beneficiaries who are victims of Alzheimer's disease or related disorders. The legislation specifies that the project shall be conducted over a period of 3 years, and that sites must be geographically diverse, located in States with a high proportion of Medicare beneficiaries, and in areas readily accessible to a significant number of beneficiaries. The services to be provided under the demonstration may include: case management; home and community-based services such as adult day care and personal care services; and education, counseling, and other supports for the primary informal caregiver (the family member who provides the most informal care) of the Alzheimer's patient. In 1987 a contract was awarded to Mathematica Policy Research, Inc. to assist the Health Care Financing Administration (HCFA) in designing and implementing the demonstration. The proposed design calls for testing of alternative models that involve variations in the type and amount of services covered or the level of Medicare reimbursement and the intensity of case management.

Status: Demonstration sites are being selected through a competitive process during 1988. Site selection is scheduled for late 1988. After an initial planning phase, the demonstration sites will begin furnishing services to clients in the Spring of 1989. HCFA plans to award a contract in the Spring of 1989 for an independent evaluation of the demonstration.

Capitation Reimbursement for Frail Elderly

Project No.:	99-C-98526/1-05
Period:	August 1988-July 1989
Funding:	$ 74,392
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	William D. Clark Division of Long-Term Care Experimentation

Description: This project will examine data on Medicaid nursing home certifiable beneficiaries as a means to analyze and refine the capitated reimbursement methodology being implemented in the congressionally mandated program for all-inclusive care for the elderly (PACE) demonstration. The PACE demonstration will attempt to replicate the model developed by On Lok Senior Health Services in San Francisco, California.

Status: The project is in the early developmental stage.

Long-Term Care Populations

Long-Term Care of Aged Individuals With Hip Fractures: Public Versus Private Costs

Project No.:	18-C-98393/3-03
Period:	September 1983-September 1988
Funding:	$ 711,793
Award:	Cooperative Agreement
Awardee:	University of Maryland Medical School 655 West Baltimore Street Baltimore, Md. 21201
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: This study is examining, in detail, the complex economic and psychosocial determinants of

the public and private contribution to the long-term care of a group of aged individuals who suddenly become disabled by hip fractures. The impact of family size and composition, social support, family economic resources, and the aged individual's physical and mental health will be analyzed in terms of the decision to enter a nursing home or return home.

Status: Interviews (baseline and 2-, 6-, and 12-month followups) for patients from seven hospitals in the Baltimore, Maryland area have been completed. Data analysis has begun, and the final report is expected by the end of 1988.

Massachusetts Health Care Panel Study of Elderly-Wave IV

Project No.:	18-C-98592/1-02
Period:	July 1984-January 1989
Funding:	$ 152,408
Award:	Cooperative Agreement
Awardee:	Harvard University/Harvard Medical School 1350 Massachusetts Avenue Holyoke Center 458 Cambridge, Mass. 02138
Project Officer:	Marni Hall Division of Reimbursement and Economic Studies

Description: This project collected the fourth wave of self-reported information from the Massachusetts Health Care Panel Study cohort, a group that was selected 10 years ago as a statewide probability sample of all persons 65 years of age or over. The data from the first three waves were analyzed and the results have been reported in numerous articles in professional journals. In this project, the data from all four waves are being analyzed to determine markers of functional decline during pre-death, predictors of long-term care institutionalization, and interrelationships between physical, behavioral, and social characteristics and subsequent health care and social service utilization and mortality.

Status: All of the data for this project have been gathered. Analysis of the data is under way, and a final report is expected in 1989.

The 1982 and 1984 Long-Term Care Surveys

Project No.:	1AA-84-P-383 (Data collection for 1984 Survey)
Period:	October 1983-December 1985
Funding:	$ 1,900,000
Award:	Interagency Agreement
Agency:	The Bureau of the Census Demographic Surveys Division Suitland, Md. 20233
Project Officer:	Herbert A. Silverman Division of Program Studies

Description: The 1984 Long-Term Care Survey capitalizes on the data collected for the 1982 Survey by interviewing the same persons, thus providing a longitudinal look at the functionally impaired elderly living in the community. The 1984 Survey expanded the scope of the 1982 Survey to provide a cross-sectional look at all functionally impaired Medicare beneficiaries 65 years of age or over no matter where they reside. The 1984 longitudinal component collected data on the functionally impaired persons included in the 1982 Survey and still living in the community, persons now living in institutions, and those who are deceased. The 1984 cross-sectional component comprised the 1982 sample plus persons who were excluded in 1982 because they were institutionalized, persons who did not screen into the 1982 Survey because they were not functionally impaired, and persons who aged into the sample, (that is, persons who were 63 and 64 years of age in 1982 and who were 65 and 66 years of age in 1984). In 1984, persons were interviewed personally by the use of a detailed community questionnaire similar to the one used in 1982. Interviews were with a proxy for those who were institutionalized or deceased, using abbreviated questionnaires that collected information on services used and source of payment. Data for 1984 will make possible the analysis of circumstances leading to institutionalization and whether alternatives could have been considered. This would identify methods of intervention to forestall premature or inappropriate nursing home placements and thus reduce current estimates of national expenditures for nursing home services, particularly for the Medicaid program.

Status: Papers using data from the 1982 Survey have already been produced, including:

- "1982 Long-Term Care Survey: National Estimates of Functional Impairments Among the Elderly in the Community," presented at the National Association of Welfare Research and Statistics Conference in Hartford, Conn., August 1984.
- "1982 Long-Term Care Survey: Functional Impairments and Sources of Support of Elderly Medicare Beneficiaries Living in the Community," presented at the Gerontological Society of America in San Antonio, Tex., November 1984.
- "A profile of functionally impaired elderly persons living in the community," published in the *Health Care Financing Review*, Vol. 7, No. 4, Summer 1986.

In February 1988, public use data tapes from the 1982 and 1984 Long-Term Care Surveys were made available at the National Technical Information Service, as described in the next project.

A National and Cross-National Study of Long-Term Care Populations

Project No.:	18-C-98641/4-01
Period:	September 1984-September 1988
Funding:	$ 805,000
Award:	Cooperative Agreement
Awardee:	Duke University Center for Demographic Studies 2117 Campus Drive Durham, N.C. 27706
Project Officer:	Herbert A. Silverman Division of Program Studies

Description: Based on data from the 1982 and 1984 Long-Term Care Surveys, this project will forecast the size and the socioeconomic characteristics, health status, and cognitive and physical functioning capacities of the aged population in the United States into the middle of the 21st century. These projections would be compared with similar information from other countries. The findings will be useful for planning long-term care programs for functionally impaired aged persons. The project has been expanded to conduct additional analyses on:

- Identifying clusters of characteristics that distinguish groups of functionally impaired aged persons living in the community and are associated with differential patterns of use and expenditures of home health care services.
- Comparing hospital and post-hospital experiences of persons in the 1982 and 1984 Long-Term Care Surveys and relating them to changes in their functional and health status in the interim. As an extension of this analysis, ascertain whether there have been substitutions for different types of services over time in light of the patients' changed health and functional status. For example, are home health services used more in lieu of nursing home services?
- Describing and comparing out-of-pocket health care expenses relative to aged persons' health status, functional and cognitive disabilities, and access to informal caregiving services.
- Examining the impact of institutionalization and the medical expenses incurred prior to and after institutional placement on the spouse who is not institutionalized. This will examine the impact of one spouse's institutionalization on the other spouse's economic, residential, health, and functional status. This analysis will shed light on the Medicaid spend-down process as experienced by the surviving spouse.
- Refining the calibration of the underwriting factors used in computing the adjusted average per capita cost for establishing the capitation rates for aged Medicare enrollees joining health maintenance organizations and other prepayment plans. This study will combine detailed data on the functional and socioeconomic characteristics of the aged population from the 1982 and 1984 Surveys with Medicare utilization and expenditure data.
- Converting the data tape from the 1984 Long-Term Care Survey to a format suitable for public distribution.

Status: Work is in progress on all aspects of this project. A final report on the original scope of the project is expected late 1988. Public use data tapes from the 1982 and 1984 Long-Term Care Surveys are available from the National Technical Information Service. There are three parts to the package. Each may be purchased separately under different accession numbers:

- The documentation for the data tapes is available in paper copy (at $86.95) or microfiche (at $24.00). The accession number is PB88-172267.
- The data from the 1982 and 1984 surveys are available in two separate tapes. One contains data on persons interviewed in 1982 and 1984. This provides the longitudinal perspective on persons in the Survey. The second contains data on all persons participating in the 1984 Survey. This includes data on aged persons who became Medicare beneficiaries after the 1982 Survey was conducted. This provides a cross-sectional perspective on functionally impaired aged Medicare beneficiaries in 1984. The 1984 data on persons in nursing homes is more complete than obtained in 1982. The accession number is PB88-172242. The cost is $600.
- Medicare Part A bill data for services received between 1978 and 1985 by persons participating in the Surveys constitute the third tape. The coding scheme permits person-level linkage of the bill file to persons participating in the Survey. The accession number for this tape is PB88-172259. The cost is $200. Technical assistance to persons purchasing the public use tapes is available from the staff at Duke University. The provision of this service is funded under this agreement.

Deinstitutionalization of the Chronically Mentally Ill

Period:	May 1980–June 1987
Award:	Grants
Grantees and Project Nos.:	Arkansas, 11-P-98117 Connecticut, 11-P-98259 District of Columbia, 11-P-98000 Georgia, 11-P-97575 Maine, 11-P-98242 Minnesota, 11-P-97563 New Hampshire, 11-P-98100 New Jersey, 11-P-97799 Rhode Island, 11-P-98118 Tennessee, 11-P-97952 Vermont, 11-P-97787 Washington, 11-P-98200
Project Officer:	Donald Sherwood Division of Long-Term Care Experimentation

Description: This project was initiated as a joint effort between the Departments of Housing and Urban Development (HUD) and Health and Human Services under the Demonstration for Deinstitutionalization of the Chronically Mentally Ill. HUD provided loans for the construction of community-based housing under Section 202, and rental assistance under Section 8. The Health Care Financing Administration provided Medicaid waivers to the 12 States involved to permit reimbursement for a 3-year-period for services such as case management, life-skills training, supervision, and transportation. The 3-year period was considered a transition period during which the States would use to secure permanent funding. The demonstration design required that clients be at least 18 years old, chronically mentally ill, and either institutionalized or at risk of being institutionalized. It also stipulated that each client be assigned a case manager who would perform many diverse functions such as providing linkage to needed services and monitoring the client's functional status. An integral task for the case manager was the

formulation, assistance in implementation, and periodic revision of an individual service plan tailored to each client's unique needs. In order to encourage the development of a variety of housing and supportive service models, a range of required and recommended services to be offered to residents of demonstration housing was specified. In addition to case management, required services included: house and milieu management, life-skill development, mental and physical health care, and crisis stabilization. Recommended or optional services as required to fulfill the client's total needs include: vocational development, sheltered workshops, education, psychotherapy, advocacy services, and recreational/vocational planning. Two types of independent living residences have been developed: group homes to serve a maximum of 12 individuals each or independent living complexes, i.e., apartments of 6 to 10 units, to house no more than 20 individuals.

Status: All States have completed the demonstration. The final reports for eight States only are available from the National Technical Information Service:

- Arkansas, accession number PB88-246665/AS.
- District of Columbia, accession number PB88-246673/AS.
- Georgia, accession number PB88-246624/AS.
- New Jersey, accession number PB88-246632/AS.
- Rhode Island, accession number PB89-115075/AS.
- Tennessee, accession number PB88-246699/AS.
- Vermont, accession number PB88-246657/AS.
- Washington, accession number PB88-246640/AS.

Analysis of State Systems for Providing Intermediate Care Facility for the Mentally Retarded and Other Care for the Mentally Retarded

Project No.:	18-C-99074/5-01
Period:	June 1987-March 1989
Funding:	$ 88,268
Award:	Cooperative Agreement
Awardee:	Center for Residential and Community Services University of Minnesota 6 Pattee Hall 150 Pillsbury Drive, SE. Minneapolis, Minn. 55455
Project Officer:	Marni Hall Division of Reimbursement and Economic Studies

Description: This project will update information on the status and changes in residential services for the mentally retarded gathered by this awardee for 1977 and 1982 in a previous Health Care Financing Administration-funded grant. Data on the current status of the intermediate care facility for the mentally retarded (ICF/MR) program, which was obtained through the Inventory of Long-Term Care Places, the sampling frame for the institutional component of the National Medical Expenditures Survey, will be analyzed and supplemented by case studies of selected States' programs for serving the mentally retarded.

Status: This project is analyzing data from the tape of the Inventory of Long-Term Care Places, and is conducting indepth State studies. Preliminary results from this project will be available in early 1989. A final report is expected Spring 1989.

The Development of Long-Term Care Reform Strategy for New York's Office of Mental Retardation and Developmental Disabilities

Project No.	11-C-99309/2-01
Period:	June 1988-June 1990
Funding:	$ 115,581
Award:	Cooperative Agreement
Awardee:	New York State Department of Social Services Division of Medical Assistance 40 North Pearl Street Albany, N.Y. 12243
Project Officer:	William D. Clark Division of Long-Term Care Experimentation

Description: The New York Office of Mental Retardation and Developmental Disabilities will conduct a 2-year project to develop a comprehensive plan and waiver application that would reform the financing, regulation, and service delivery of the mentally retarded and developmentally disabled system in three districts that cover eight New York counties. The State sees the demonstration as the first step toward statewide implementation. The objectives are to:

- Develop a financing system that will improve services to this population by expanding the number and types of people to be served and the types of services to be provided.
- Change the manner in which quality of care is assured.
- Constrain growth in Federal expenditures for these services.

Waivers would alter the Medicaid basis of payment, revise the State Medicaid plan requirements, change how Medicaid funds can be used, and implement revised quality assurance regulations. The demonstration will test an alternative financing approach that approximates recently formulated departmental policy directions as developed by the Department of Health and Human Services Working Group on intermediate care facilities for the mentally retarded. The project would represent a major test of reform in the delivery of services for persons who are developmentally disabled.

Status: The State has initiated first-year activities. Key staff members have been hired, an advisory committee is being selected, and the development of issue papers is under way.

Community Care for Alzheimer's and Related Diseases

Project No.:	18-P-99020/3-01
Period:	June 1987-June 1988
Funding:	$ 127,970
Award:	Cooperative Agreement

Awardee: The Urban Institute
Health Policy Center
2100 M Street, NW.
Washington, D.C. 20037
Project Officer: Dana B. Burley
Division of Long-Term Care Experimentation

Description: The awardee will analyze data from the National Long-Term Care Channeling Demonstration (1982–84) to determine the range of services, sources, and costs of care used by community residents with cognitive impairment and to determine the risks of their entering nursing homes, as a function of physical and mental health status, and the types and amounts of care received in the community. The study is expected to provide baseline information for the Alzheimer's Disease demonstration project that is congressionally mandated in Section 9342 of the Omnibus Budget Reconciliation Act of 1986.

Status: Analyses of several cost centers for community care and risks of nursing home admissions currently are being carried out. In addition, the Health Care Financing Administration has approved an additional task that permits an assessment of the feasibility of using a longitudinal data base from the Triage/ Connecticut Community Care, Inc. This data base contains details on patient assessment and management systems that may provide additional information on the costs of persons with Alzheimer's and related diseases.

An Exploratory Study of the Economic Consequences of Acquired Immunodeficiency Syndrome and AIDS-Related Complex for the Medicare and Medicaid Programs

Project No.: 18-C-99141/3-01
Period: July 1987–December 1988
Funding: $ 239,957
Award: Cooperative Agreement
Awardee: The George Washington University
Office of Sponsored Research
Rice Hall, 6th Floor
Washington, D.C. 20052
Project Officer: Penelope L. Pine
Division of Program Studies

Description: The purpose of this project is to explore the potential consequences of acquired immunodeficiency syndrome (AIDS) and AIDS-related complex for the Medicaid and Medicare programs over the next decade. The study will use the best currently available estimates of prevalence and cost per case and develop estimates of the portion of these costs that may be borne by the Medicaid and Medicare programs under alternative policy options that may be considered in future years. The project will provide concept papers focused on the cost implications for the Medicaid and Medicare programs, estimating effects of alternative scenarios of the development of AIDS cases, treatment modes, and the distribution of sources of payment for the costs.

Status: This project has completed a comprehensive literature review of studies on the prevalence of AIDS, alternative treatment modes and their costs, and the methods and sources of the treatment costs. The estimation methodology was presented at the Johns Hopkins University School of Hygiene and Public Health's Conference on the Economic Impact of AIDS: Research Methodology. This paper will be published in the proceedings of that meeting.

Research on Acquired Immunodeficiency Syndrome Cost and Utilization Experience in New York and California Medicaid Programs

Project No.: 18-C-99242/9-01
Period: June 1988–December 1990
Funding: $ 266,702
Award: Cooperative Agreement
Awardee: SysteMetrics, Inc.
104 West Anapamu Street
Santa Barbara, Calif. 93101
Project Officer: Penelope L. Pine
Division of Program Studies

Description: The purpose of this project is:

- To use epidemiological techniques to produce incidence analysis of acquired immunodeficiency syndrome (AIDS) over a 4½-year time period (October 1982 to March 1987).
- To study the eligibility patterns of AIDS patients in Medicaid.
- To develop a disease staging algorithm for AIDS Medicaid patients.
- To provide a utilization and cost analysis of the population.

Status: A panel of expert scientists on human immunodeficiency virus (HIV)-infection is being selected to review the appropriate manifestations of the disease for the staging methodology. The staff from the Division of Medicaid Assistance, New York State Department of Social Services, has begun the incidence analysis for New York and will present the findings at the 1988 Annual Meeting of the American Public Health Association.

Medicaid Home and Community-Based Waiver Programs for Acquired Immunodeficiency Syndrome Patients

Project No.: 99-C-98489/9-05
Period: August 1988–April 1989
Funding: $ 52,679
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Penelope L. Pine
Division of Program Studies

Description: The purpose of this project is to develop a background paper that identifies major research questions for an evaluation of the utilization and expenditure patterns of acquired immunodeficiency syndrome (AIDS) patients in State Medicaid home

and community-based waiver programs. The study will identify appropriate data sources, review available literature on State waiver programs, and identify major research questions that should be addressed. The project will explore the reasons why States with large AIDS patient populations have not sought Medicaid home and community waivers.

Status: The project is in the early developmental stage.

Cost of Acquired Immunodeficiency Syndrome

Project No.:	99-C-98489/9-05
Period:	May 1987-December 1988
Funding:	$ 215,739
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Penelope L. Pine Division of Program Studies

Description: The objective of this project is aimed at improving the Nation's understanding of the costs generated by acquired immunodeficiency syndrome (AIDS) patients and the distribution of the resulting cost burden to various public and private payers. Essentially, the project has two parts:

- A feasibility test for recruiting and interviewing a panel of patient volunteers from the Los Angeles area regarding their treatment and financing source(s).
- A survey of State health, Medicaid, and health insurance regulation agencies concerned with current studies and operating policies with respect to AIDS.

Status: The project is near completion. Interviews have been conducted with all patients selected from the Los Angeles panel study, and the information collected is being analyzed. All targeted jurisdictions have replied to the State survey and the results of the survey are expected by October 1988. A final report for the entire project is expected December 1988.

Mental Health Studies

Project No.:	99-C-98489/9-05
Period:	September 1986-April 1989
Funding:	$ 222,062
Award:	Cooperative Agreement
Awardee:	The Rand Policy Research Center (See page 65)
Task Leader:	Michael J. Baier Division of Operations Support

Description: This project consists of a series of mental health studies. The studies involve:

- The analysis of the effects of fee-for-service plans on the mental health status of adults and children.
- The effects of health maintenance organization versus fee-for-service plans on mental health outcomes.
- The effect of mental dimensions on the use of medical services.
- The health status and use of services by persons who are uninsured relative to those with Medicare, Medicaid, and private insurance.

Funding for this project has been provided by the National Institute of Mental Health.

Status: A series of working drafts have been prepared for four of the studies. Rand will publish these reports after revisions are made. Work is still ongoing on several studies, and all work is expected to be completed by April 1989.

Case-Management Studies

Case-Managed Medical Care for Nursing Home Patients

Project No.:	95-P-98346/1-06
Period:	July 1983-July 1989
Award:	Grant
Grantee:	Massachusetts Department of Public Welfare 180 Tremont Street Boston, Mass. 02111
Project Officer:	Dana B. Burley Division of Long-Term Care Experimentation

Description: The Health Care Financing Administration (HCFA) granted Medicare and Medicaid waivers to the Massachusetts Department of Public Welfare to permit fee-for-service reimbursement for the provision of medical services by physician-supervised nurse practitioners/physician assistants (NP/PA) for residents of nursing homes. This permits increased medical monitoring that is expected to generate cost savings as a result of fewer hospital admissions and outpatient visits. Providers are responsible for managing and monitoring the health care and medical condition of all enrollees to assure that the primary care needs of nursing home patients are met in a timely fashion, often without resorting to the hospital emergency room. Initial physical exams, medical evaluation, and reevaluations are being performed by the NP/PA in the nursing home. The NP/PA operates under written protocols that describe the common medical problems to be encountered and appropriate evaluation and treatment procedures. The supervising physician reviews and countersigns the NP/PA's evaluation and prescriptions. The physician is also consulted in any unusual situation or emergency.

Status: The Rand Corporation, as part of the Research Center Cooperative Agreement with the Health Care Financing Administration, is completing an evaluation of this project's impact on the use and cost of nursing home and hospital services. This evaluation relies primarily on Medicare and Medicaid claims data. The Pew Foundation has awarded a grant to the University of Minnesota to assess the project's impact on quality of care. Section 9413 of Public Law 99-509, the Omnibus Budget Reconciliation Act of 1986, mandated the continuation of this project through July 1989.

Evaluation of Massachusetts Case-Managed Medical Care for Nursing Home Patients

Project No.: 99-C-98489/9-05
Period: April 1985-May 1989
Funding: $ 393,513
Award: Cooperative Agreement
Awardee: The Rand Policy Research Center
(See page 65)
Task Leader: Tony F. Hausner
Division of Long-Term Care Experimentation

Description: The Health Care Financing Administration granted Medicare and Medicaid waivers to the Massachusetts Department of Public Welfare to permit fee-for-service reimbursement for the provision of medical services by physician-supervised nurse practitioners/physician assistants for 6,500 residents of nursing homes. This will permit increased medical monitoring that is expected to generate cost savings as a result of fewer hospital admissions and hospital outpatient visits. This evaluation will focus on the impact of the project on the use of nursing home services and hospital emergency room and outpatient services. The University of Minnesota is conducting a related evaluation on the impact of the project on quality of care.

Status: Rand and Minnesota retrospectively collected data for the study period March 1986 to March 1987. Rand is currently analyzing Medicare and Medicaid claims data, and Minnesota is analyzing medical records data. The final report is expected by March 1989.

Report on Costs of Case Management

Project No.: 99-C-99169/5-01
Period: August 1988-May 1989
Funding: $ 33,061
Award: Cooperative Agreement
Awardee: University of Minnesota Research Center
(See page 67)
Task Leader: Margaret A. Coopey
Division of Long Term Care Experimentation

Description: Under this project, a report on case management and its costs will be prepared. The report will include:

- A typology of case management as it now exists.
- A discussion of how to evaluate the costs and benefits of case management.
- An estimation of the likely cost implications of case management.

Status: This project is in the early developmental stage.

Catastrophic Coverage Studies

Cohort Analysis of Disabled Elderly

Project No.: 99-C-98526/1-05
Period: August 1988-July 1989
Funding: $ 89,986
Award: Cooperative Agreement
Awardee: Brandeis University Research Center
(See page 66)
Task Leader: Judith A. Sangl
Division of Reimbursement and Economic Studies

Description: The project applies event history analyses to nationally representative data sources to derive estimates of the transitions between various health status categories and the duration within categories for different age groups. These data sources include: National Health Interview Surveys, National Long-Term Care Surveys, Longitudinal Study on Aging, and the National Nursing Home Surveys. Researchers assigned to the project will also estimate, based on the type and level of severity of morbidity and disability categories, the risks involved and duration of specific types of acute and long-term care.

Status: The project is in the early developmental stage.

Study of Alternative Out-of-Home Services for Respite Care

Project No.: 99-C-98526/1-05
Period: September 1988-June 1989
Funding: $ 239,495
Award: Cooperative Agreement
Awardee: Brandeis University Research Center
(See page 66)
Task Leader: Dana B. Burley
Division of Long-Term Care Experimentation

Description: This study will examine the advisability of expanding the respite care benefit to cover out-of-home services such as those provided in a nursing home or an adult day health care center as an alternative to in-home respite care. Brandeis University researchers will assess the advisability of broadening the respite care benefit to include alternative services giving consideration to cost, access, quality of care, and the feasibility of implementation. This will be accomplished using information collected from existing data sets and from ongoing respite programs and demonstrations. This project is congressionally mandated under Section 205(g) of the Medicare Catastrophic Coverage Act of 1988.

Status: The project is in the early developmental stage.

Other Studies

State Medicaid Nursing Home Policies, Utilization, and Expenditures

Project No.: 18-C-98765/9
Period: September 1985-September 1987
Funding: $ 156,805
Award: Cooperative Agreement
Awardee: University of California at San Francisco
3rd and Parnassus Avenues
San Francisco, Calif. 94143

Project Officer:	Lawrence E. Kucken Division of Beneficiary Studies

Description: The project examined Medicaid long-term care use and cost across the 50 States as they are affected by State policies (utilization controls, eligibility rules, and reimbursement). Focus is on the impact of controls implemented during the period 1982–85, using annual statistical reports (HCFA Form 2082, Statistical Report on Medical Care: Recipients, Payments, and Services) and other sources of data.

Status: The project was funded in September 1985. Because of the additional time required for the analysis phase, this project was extended. The final report is available from the National Technical Information Service, accession number PB88-155379/AS.

Can Geriatric Nurse Practitioners Improve Nursing Home Care?

Project No.:	18-C-98379/9-03
Period:	September 1983–December 1988
Funding:	$ 673,759
Award:	Cooperative Agreement
Awardee:	The Rand Corporation 1700 Main Street Santa Monica, Calif. 90406
Project Officer:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The purpose of the study is to evaluate the potential of the use of geriatric nurse practitioners for improving outcomes of care and containing costs in skilled nursing facilities. The 30 nursing homes that participated in the Mountain States Health Corporations geriatric nurse practitioner demonstration project will be compared with 30 nursing homes in the region that did not participate. Comparisons will be made of:

- Patient outcomes.
- Process of care.
- Nursing home costs.
- History of certification deficiencies.

Homes will be matched by State, ownership, bed size, and urban, suburban, or rural location.

Status: Analyses are being completed of:

- Case-study interviews with nursing home administrators, directors of nursing, and geriatric nurse practitioners.
- Prospective patient functional assessment and outcome data.
- Family satisfaction interviews.
- Retrospective medical record reviews.
- Nursing home inspection and citation data.

Medicaid and Medicare cost reports are also being collected and analyzed. The final report is expected late 1988.

Efficacy of Nursing Home Preadmission Screening

Project No.:	18-C-99213/1-01
Period:	June 1988–June 1990
Funding:	$ 325,000
Award:	Cooperative Agreement
Awardee:	Brown University Division of Biology and Medicine Providence, RI 02912
Project Officer:	Phyllis A. Nagy Division of Long-Term Care Experimentation

Description: The purpose of this project is to evaluate a nursing home preadmission screening methodology developed by Brown University for the State of Connecticut, to identify those persons who would be institutionalized if community-based services (under the State's Section 2176 Medicaid waiver program) were not available. The project will analyze the extent to which the screen accurately predicts the need for a nursing home level of care or an equivalent level of community care. It is anticipated that this study will refine the instrument, thereby assisting in the placement of long-term care clients in the most cost-effective setting. In recent years more than 30 States have adopted some form of preadmission screening, although the scope and methodology of programs vary considerably. A synthesis of State efforts and the project's results detailing whether these preadmission screening programs can successfully identify at-risk individuals will provide guidance to the Health Care Financing Administration in identifying the most effective approaches.

Status: The cooperative agreement was awarded in July 1988. A September 1, 1988 project start date was approved to provide the awardee with adequate time to hire appropriate staff.

Evaluation of National Rural Swing-Bed Program

Project No.:	500-83-0051
Period:	September 1983–November 1987
Funding:	$ 1,181,478
Award:	Contract
Contractor:	Center for Health Services Research University of Colorado Health Sciences Center 1355 South Colorado Boulevard Denver, Colo. 80222
Project Officer:	Herbert A. Silverman Division of Program Studies

Description: This project is congressionally mandated by the Omnibus Reconciliation Act of 1980 (Public Law 96-499). The legislation permits hospitals with fewer than 50 beds that are located in rural areas with a shortage of long-term care beds to "swing" their beds between acute and long-term care as needed. The evaluation will assess the impact on:

- Access to long-term care beds in rural areas.
- Quality of long-term care in hospitals.
- Cost of service in swing-bed hospitals.
- Program-wide costs.
- Administrative costs to administer and monitor the program.

Based on the findings and recommendations, Congress would decide whether to continue the program or

extend it to larger hospitals. The Medicare prospective payment system (PPS) for hospitals was instituted for hospital fiscal years beginning on or after October 1, 1983. It is perceived that PPS has had an effect on hospital lengths of stay and on the condition of patients at the time of discharge. This could have a significant impact on the use of swing beds. The scope of work for this contract was expanded in 1985 to assess the impact of PPS on the swing-bed program.

Status: The Report to Congress was delivered in February 1988. The Health Care Financing Administration recommended the continuation of the rural swing-bed program and retention of the current method of paying for long-term care services in the swing-bed. It was suggested that consideration be given to extending the swing-bed option to larger rural hospitals. The report recommended against the extension of the swing-bed option to urban hospitals at this time. Congress extended the swing-bed option to rural hospitals with fewer than 100 beds. The findings concerning the impact of PPS on the swing-bed program have been delivered and are in the process of being incorporated into the Annual Report to Congress on the *Impact of the Medicare Hospital Prospective Payment System*. The evaluation contract was again modified in 1988 to develop another mandated congressional report on the extent, reasons, and impact of the peer review organization denials of admissions to swing-bed hospitals for extended care services. Recommendations for methods of encouraging eligible hospitals to elect the swing-bed option were to be included in the report. Delivery of this report is scheduled for early 1989.

Financial Impact to Beneficiaries of Nursing Home Care

Project No.:	99-C-98526/1-05
Period:	August 1988-February 1990
Funding:	$ 129,888
Award:	Cooperative Agreement
Awardee:	Brandeis University Research Center (See page 66)
Task Leader:	Judith A. Sangl Division of Reimbursement and Economic Studies

Description: The project will use the Urban Institute's Transfer Income Model (TRIM)-2 for State estimates and the Connecticut Nursing Home Inventory data base to calculate nursing home use and payments. The TRIM-2 model is a microsimulation model, based on the 1984 Current Population Survey, used in forecasting use and payments. The Connecticut Inventory data base contains patient-specific information on all nursing home patients (private and public) from 1977 to the present. In addition, the 1985 National Nursing Home Survey will be used to analyze several dimensions of nursing home use. From the collected data, estimates will also be made for the nursing home patients' spend-down provision.

Status: The project is in the early developmental stage.

Prior and Concurrent Authorization Demonstrations

Project No.:	500-87-0029-3
Period:	September 1987-July 1992
Funding:	$598,000
Award:	Contract
Contractor:	Lewin/ICF 1090 Vermont Ave. Washington, D.C. 20005
Project Officer:	Tony F. Hausner Division of Long-Term Care Experimentation

Description: Section 9305 of Public Law 99-509, the Omnibus Budget Reconciliation Act of 1986 (OBRA-86) required the Secretary of Health and Human Services to conduct a demonstration program concerning prior and concurrent authorization for post-hospital extended care services and home health services furnished under Part A or Part B of Title XVIII. This legislation responds to concerns expressed by home health agencies (HHA's) and skilled nursing facilities (SNF's) that under the current system of Medicare payment they can not adequately predict what services the fiscal intermediaries (FI's) will deny as noncovered. In recent years there has been a steady increase in the number of visits denied by FI's. It is hypothesized that prior authorization (PA) and concurrent authorization (CA) payment approaches will reduce the number of services denied without increasing Medicare expenditures. Under PA, providers submit treatment plans to FI's for review prior to the start of care; under CA, plans of treatment are submitted when care begins. In both approaches, the provider receives notification from the FI about how many services will be covered. This provides greater certainty about coverage and payment before services are given. The law required that the demonstration include at least four projects and be initiated by January 1, 1987. The law further stated that the Secretary must evaluate the demonstration and report to Congress on the evaluation by February 1, 1989; the evaluation and report must address:

- The administrative and program cost for prior and concurrent authorization compared with the current system of retroactive claims review.
- The impact on access and availability of post-hospital services and timeliness of hospital discharges.
- The accuracy and cost savings of payment determinations and rates of claims denials compared with the current system.

The Health Care Financing Administration's Bureau of Program Operations implemented a home health concurrent authorization pilot project in July 1987. This project was initiated in the State of Illinois and the entire Dallas Region and is still ongoing. Lewin/ICF is responsible for evaluating the pilot project and implementing and evaluating the SNF demonstration.

Status: Lewin/ICF has submitted a report that includes the evaluation of the home health project and the design of the SNF project. The Department is scheduled to submit a Report to Congress based on Lewin/ICF's report by February 1, 1989. The SNF demonstration will be implemented in 1989.

List of Congressionally Mandated Studies

Alternative Payment Systems

Quality of Care

Physician Payment

Hospital Payment

Program Efficiencies, Analyses, and Refinements

Beneficiary Awareness and Prevention

Subacute and Long-Term Care

Availability of Project Reports and Results

As extramural projects are completed, the final reports are placed with the National Technical Information Services (NTIS) for public access. For those projects with final reports at NTIS, the accession number for ordering purposes is given in the project write-up. Reports are available in hard copy or microfiche form; costs vary depending on the size of the reports. Further information may be obtained from: National Technical Information Service, Document Sales, 5285 Port Royal Road, Springfield, Virginia 22161, (703) 487-4650.

A few final reports are published by the Health Care Financing Administration. These reports are available for sale from the U.S. Government Printing Office (GPO). Reports must be ordered by title and stock number directly from GPO. For those projects with published final reports, ordering information is given in the project write-up. Send check or money order for the price listed and make payable to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

In addition, results from intramural and extramural research projects and demonstrations are often featured in the *Health Care Financing Review*, the Agency's quarterly journal. The journal also offers synopses on newly awarded research and demontration projects being funded by the Health Care Financing Administration. The *Review* is available on a subscription basis from the Superintendent of Documents for $13.00 ($16.25 foreign). Subscribers receive four quarterly issues and one annual single-theme supplement per year.

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U.S. Department of Health and Human Services
Health Care Financing Administration
Office of Research and Demonstrations
HCFA Pub. No. 03277 March 1989